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September 1964

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CENTRAL INTELLIGENCE AGENCY

PHOTOGRAPHIC INTELLIGENCE REPORT

SOVIET-TYPE SAM INSTALLATIONS, WACS 336 THROUGH 340, 380, 381, 383, 384, 427, 447, 448, 560, 567, 585 THROUGH 587, 647, AND 982

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PREFACE

This is the ninth, and last, in a series of reports prepared in response to CIA requirement C-RR3-80,733, presenting locational and other pertinent information on all Soviet-type surface-to-air missile (SAM) installations. 1-8/ Installations included are SAM launch sites (SA-1, SA-2, SA-3, and SA-0), antimissile-missile activities, SAM support facilities, SAM R & D and training facilities, and unidentified installations, possibly SAM-related. The information is presented by World Aeronautical Chart (WAC), and within each WAC by SAM defense area, as determined from photography and collateral sources. When the defense function of an installation cannot be determined, this is so indicated. Where no installations have been identified in a WAC area, that WAC has been omitted.

INTRODUCTION

This report presents information on all Soviet-type SAM installations located in the areas covered by WACs 336, 337, 338, 339, 340, 380, 381, 383, 384, 427, 447, 448, 560, 567, 585-587, 647, and 982 and identified on photography. The cutoff date for this information is 26 August 1964. Figure 1 shows all the WAC areas, except Cuba, which have been covered in this series; those in red are covered in this report. WACs covered in the previous reports are outlined in red, and the report numbers are indicated on the graphic. Figure 2 shows Cuba which is covered in this report. Diagrams of the configurations of the common types of SAM installations are presented in Figure 3. Information for each WAC is shown in a table (Tables 1-19), which gives detailed data, and a map (Figures 4-22), which indicates the location and type of each SAM installation. Because of the volume of data for Table 16, Figure 19 has been repeated for easier reference.

Explanations of the columnar headings used in the tables are as follows:

Item--Given in numerical sequence for each WAC, with numbers assigned to installations arbitrarily, and keyed to the accompanying WAC.

Name, Site Designator, BE Number--In accordance with the TDI. Absence of any of this information indicates that it was not available at the time of publication.

Coordinates--Given in degrees, minutes, and seconds, and plotted from series 200 US Air Target Charts unless otherwise indicated in next column.

Country & Map References--BE country codes used. Map reference is to the Air Target Chart sheet number (scale 1:200,000) unless otherwise indicated.

Type & Configuration--Indicates the type of SAM installation and its configuration as illustrated in Figure 2.

Mission & Date First Appears--Gives the number and date of the mission on which the installation was first sighted.

Mission & Date Installation Negated--Refers to the latest photography on which it has been established that construction of the installation had not been started. Absence of any notation indicates that this information could not be determined.

Remarks--Covers items of special or unusual interest.

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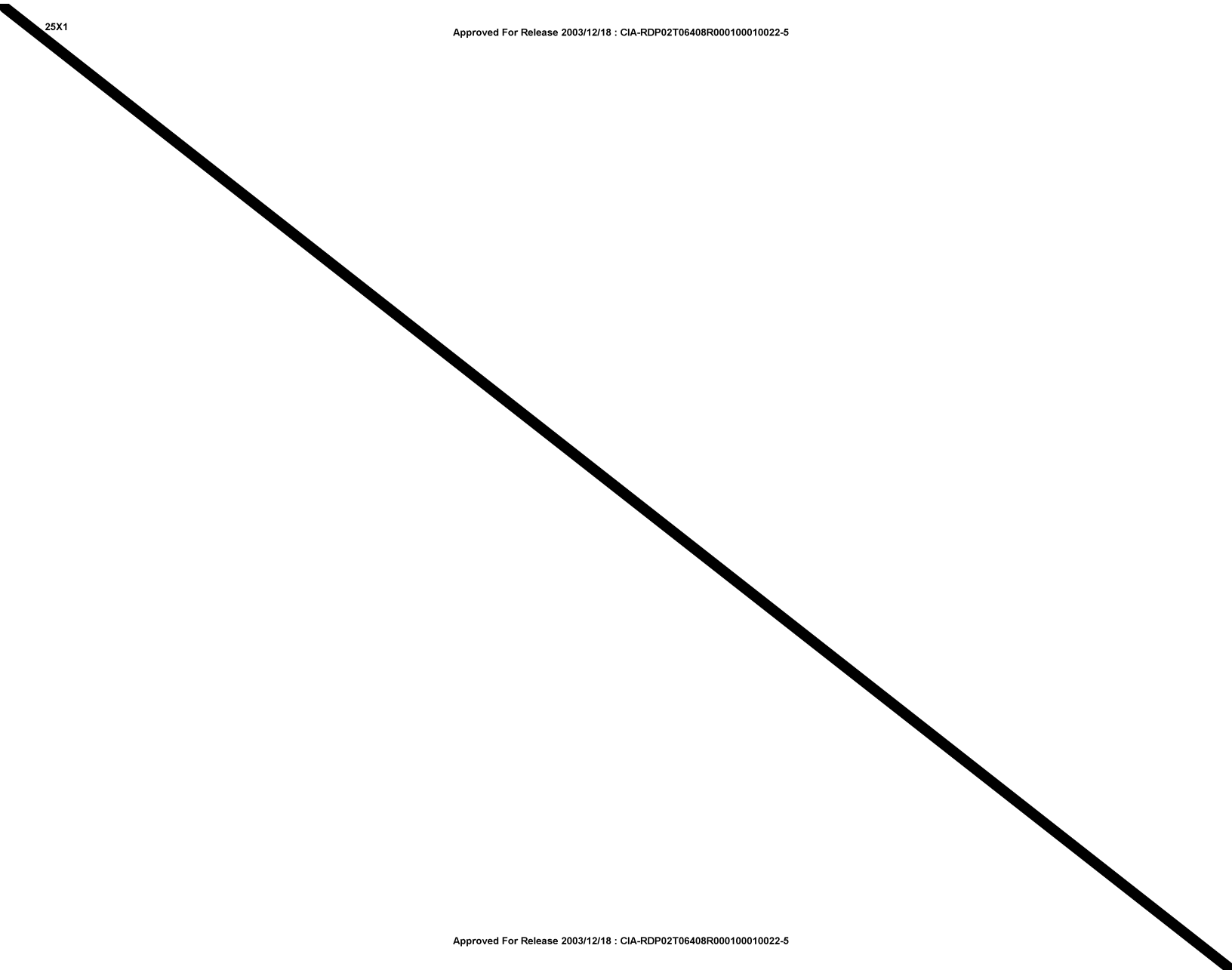

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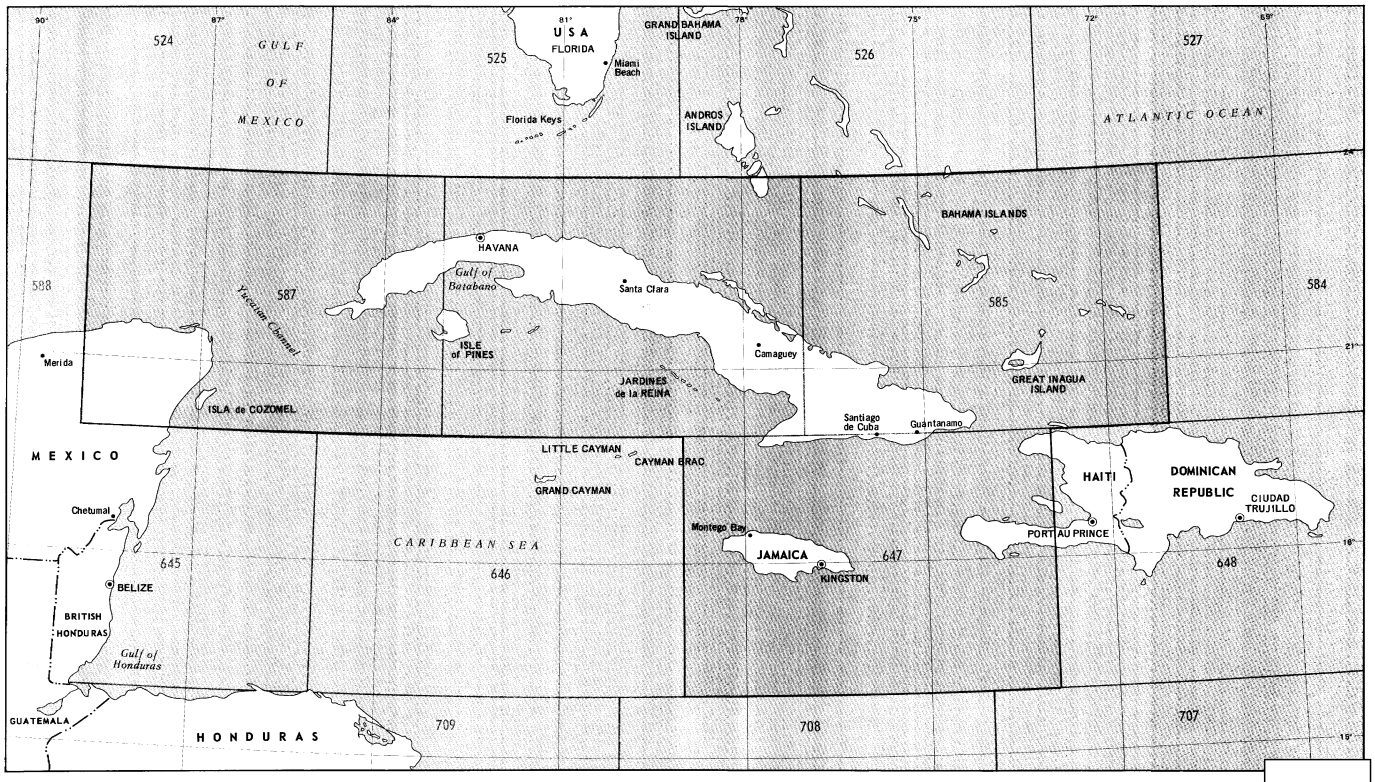

FIGURE 2. WORLD AERONAUTICAL CHART OF CUBA, SHOWING AREAS COVERED IN THIS REPORT.

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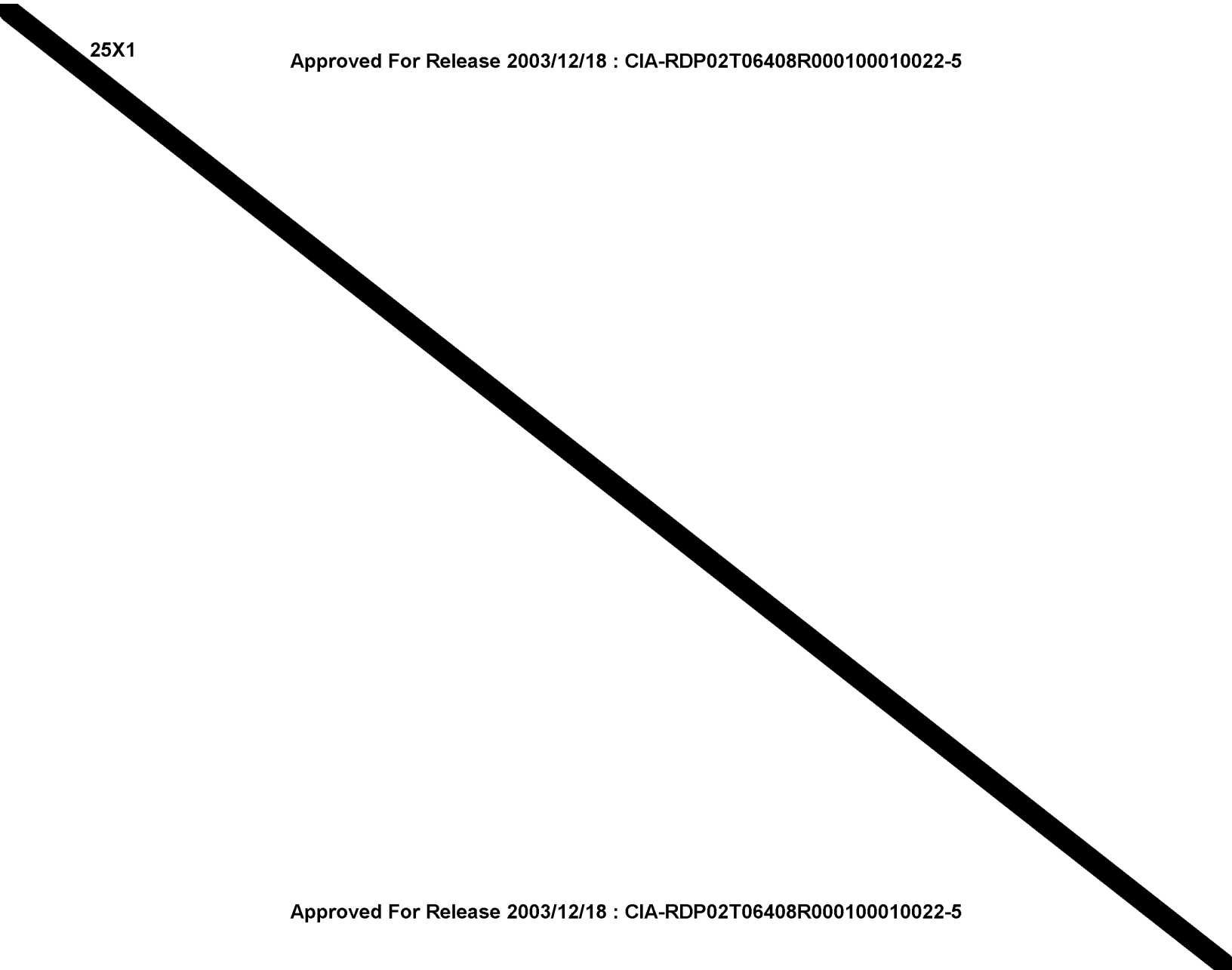

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Table 1. SAM Installations on WAC 336

Item	Name, Site Designator, & BE No	Coordinates	Country & Map Ref	Type & Configuration	Mission & Date First Appears	Mission & Date Installation Negated	Remarks
A. USSR Central Asian Border SAM Defenses (in defense of the central Asian border of the USSR and Samarkand: a minor complex containing light industry)							
1	Samarkand SAM Site A10-2,	39-44-20N 67-03-40E	UR 0336-1	SA-2, probable link	[redacted]		
2	Samarkand SAM Support Facility,	39-44-10N 67-07-00E	UR 0336-1	Type II (square)			
4	Samarkand SAM Site C07-2,	39-50-45N 67-30-30E	UR 0336-1	SA-2, configuration undetermined			
B. Dushanbe SAM Defenses (in defense of Dushanbe, capital of Tadzhik SSR: air defense sector headquarters, government control center; light and heavy industry including a tractor plant and a textile plant; Gissar Airfield--large military airfield)							
3	Dushanbe SAM Site A27-2,	38-33-00N 68-38-00E	UR 0336-7	SA-2, configuration undetermined	[redacted]		
5	Dushanbe SAM Site A08-2,	38-35-35N 68-56-20E	UR 0336-7	SA-2, link			

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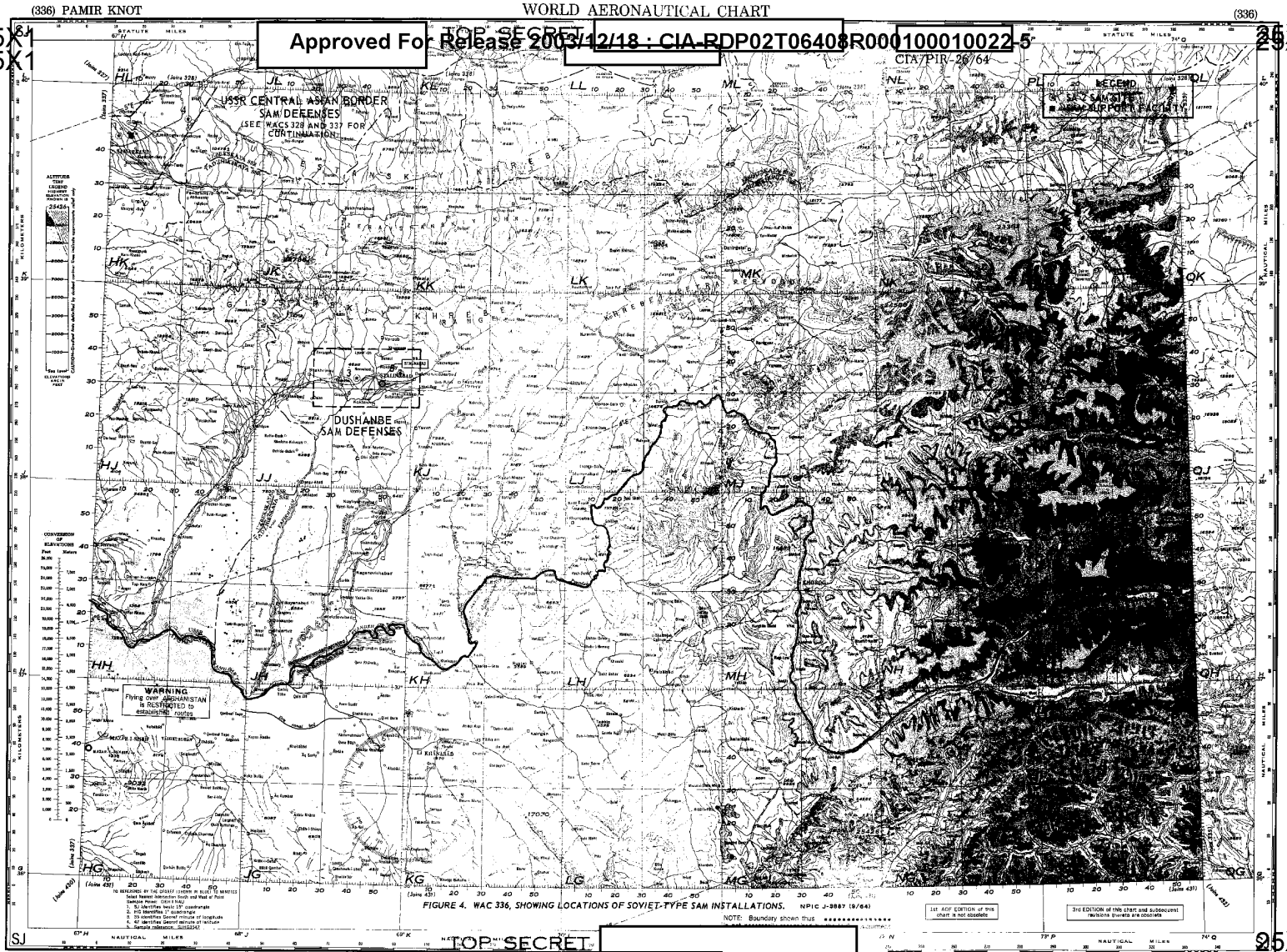

FIGURE 4. WAC 336, SHOWING LOCATIONS OF SOVIET-TYPE SAM INSTALLATIONS.

NPIC J-3887 (5/64)

NOTE: Boundary shown thus

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Table 2. SAM Installations on WAC 337

Item	Name, Site Designator, & BE No	Coordinates	Country & Map Ref	Type & Configuration	Mission & Date First Appears	Mission & Date Installation Negated	Remarks
A. USSR Central Asian Border SAM Defenses (in defense of the central Asian border of the USSR, and specific targets: Mary, several military airfields and POL storage; Bayram-Ali IRBM Complex; Chardzhou, agricultural, transportation, and light industrial center; Kurgancha MRBM Complex)							
1	Tedzhen SAM Site C24-2,	37-11-35N 60-03-10E	UR 0337-16	SA-2, configuration undetermined			
2	Tedzhen SAM Site A15-2,	37-19-45N 60-32-45E	UR 0337-16	SA-2, configuration undetermined			
3	Tedzhen SAM Site B07-2,	37-29-20N 61-01-05E	UR 0337-16	SA-2, configuration undetermined			
4	Mary SAM Site B24-2,	37-27-00N 61-33-30E	UR 0337-16	SA-2, configuration undetermined			
5	Bayram-Ali SAM Site B21-2,	37-28-25N 62-01-40E	UR 0337-17	SA-2, configuration undetermined			
6	Mary SAM Support Facility,	37-28-40N 62-01-10E	UR 0337-17	Type II (square)			
7	Bayram-Ali SAM Site B09-2,	37-37-30N 62-28-50E	UR 0337-12	SA-2, configuration undetermined			
8	Bayram-Ali SAM Site D05-2,	37-58-20N 62-40-00E	UR 0337-12	SA-2, configuration undetermined			
9	Chardzhou SAM Site B20-2,	38-54-40N 63-29-40E	UR 0337-8	SA-2, link			
10	Chardzhou SAM Site B13-2,	38-58-40N 63-45-20E	UR 0337-8	SA-2, link			
11	Chardzhou SAM Support Facility,	39-03-30N 63-34-00E	UR 0337-8	Type II (square)			
12	Chardzhou SAM Site B30-2,	39-08-00N 63-27-50E	UR 0337-8	SA-2, link			
13	Bukhara SAM Site C25-2,	39-35-00N 54-00-25E	UR 0337-3	SA-2, probable link			
14	Bukhara SAM Site A19-2,	39-41-20N 64-24-15E	UR 0337-4	SA-2, link			
15	Kurgancha MRBM SAM Site B25-2,	39-30-40N 65-46-20E	UR 0337-5	SA-2, link			
16	Kurgancha MRBM SAM Site B16-2,	39-30-00N 66-08-30E	UR 0337-5	SA-2, link			
17	Kurgancha MRBM SAM Site B04-2,	39-47-40N 66-06-00E	UR 0337-5	SA-2, link			
18	Samarkand SAM Site B28-2,	39-40-00N 66-36-00E	UR 0337-5	SA-2, link			
19	Bukhara SAM Site C14-2,	39-26-20N 64-48-00E	UR 0337-4	SA-2, configuration undetermined			One long building in the support area is visible on [redacted]; however, the site cannot be identified.
20	Bukhara SAM Site E13-2,	39-20-10N 65-10-30E	UR 0337-4	SA-2, configuration undetermined			The site access road is visible on [redacted] although the site cannot be identified.

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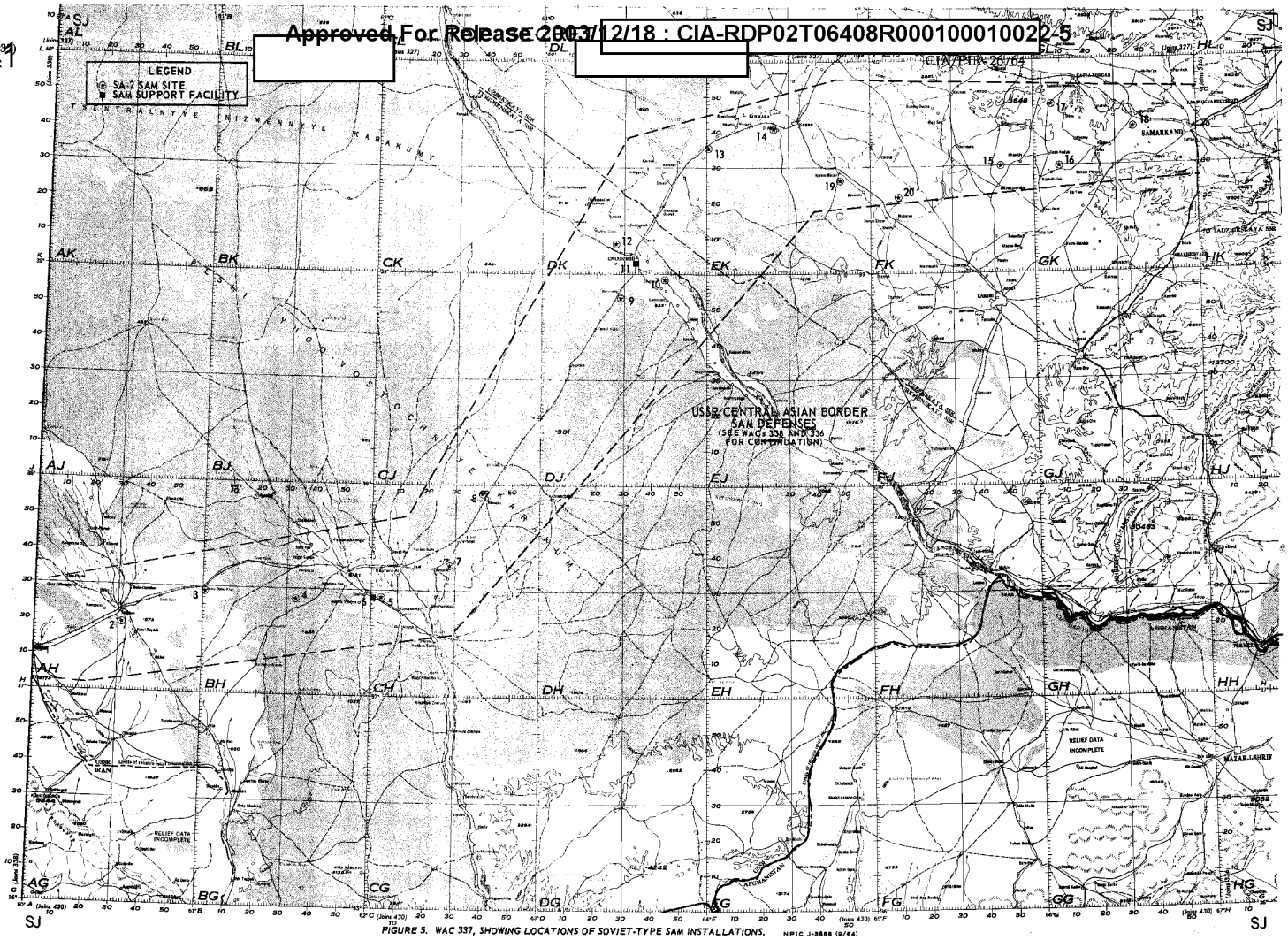

FIGURE 5. WAC 337, SHOWING LOCATIONS OF SOVIET-TYPE SAM INSTALLATIONS. NPIC J-3888 (9/64)

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Table 3. SAM Installations on WAC 338

Item	Name, Site Designator, & BE No	Coordinates	Country & Map Ref	Type & Configuration	Mission & Date First Appears	Mission & Date Installation Negated	Remarks
A. USSR Central Asian Border SAM Defenses (in defense of the central Asian border of the USSR, and specific targets: Krasnovodsk, Black Sea port containing extensive petroleum refining and storage facilities; Nebit Dag Airfield and Dzhebel Airfield--medium bomber and jet fighter bases; [redacted] Kizyl-Arvat Airfield, jet fighter base; Ashkhabad, capital of Turkmen SSR, large complex containing several major military installations, [redacted] and several military airfields)							
1	Krasnovodsk SAM Site B10-2, [redacted]	39-59-56N 53-17-50E	UR 0338-1	SA-2, fan			
2	Nebit Dag SAM Site B33-2, [redacted]	39-39-20N 54-11-35E	UR 0338-1	SA-2, configuration undetermined			
3	Nebit Dag SAM Support Facility, [redacted]	39-28-00N 54-19-55E	UR 0338-1	Type II (square)			
4	Nebit Dag SAM Site B23-2 [redacted]	39-19-15N 54-09-10E	UR 0338-1	SA-2, fan			
5	Kum Dag SAM Site A22-2, [redacted]	39-11-40N 54-33-45E	UR 0338-7	SA-2, configuration undetermined			
6	Kazandzhik SAM Site A04-2, [redacted]	39-18-30N 55-36-07E	UR 0338-2	SA-2, configuration undetermined			
7	Kizyl-Arvat SAM Site B30-2, [redacted]	39-06-50N 55-55-55E	UR 0338-8	SA-2, configuration undetermined			
8	Kizyl-Arvat SAM Site A33-2, [redacted]	39-02-05N 56-13-00E	UR 0338-8	SA-2, configuration undetermined			
9	Kizyl-Arvat SAM Support Facility, [redacted]	38-57-20N 56-18-15E	UR 0338-8	Type II (square)			
10	Kizyl-Arvat SAM Site B12-2, [redacted]	38-52-10N 56-35-20E	UR 0338-8	SA-2, configuration undetermined			
11	Bakharden SAM Site C31-2, [redacted]	38-43-05N 57-02-40E	UR 0338-8	SA-2, configuration undetermined			
12	Bakharden SAM Site A03-2, [redacted]	38-29-00N 57-27-05E	UR 0338-9	SA-2, configuration undetermined			
13	Bakharden SAM Site B12-2, [redacted]	38-19-25N 57-41-50E	UR 0338-14	SA-2, configuration undetermined			
14	Ashkhabad SAM Site B32-2, [redacted]	38-06-35N 58-09-20E	UR 0338-14	SA-2, configuration undetermined			
15	Ashkhabad SAM Site A05-2, [redacted]	37-59-10N 58-25-50E	UR 0338-14	SA-2, configuration undetermined			
16	Ashkhabad SAM Support Facility [redacted]	37-58-20N 58-24-19E	UR 0338-14	Type II (square)			
17	Ashkhabad SAM Site C11-2, [redacted]	37-48-25N 58-54-10E	UR 0338-15	SA-2, configuration undetermined			
18	Artyk SAM Site A34-2, [redacted]	37-37-25N 59-16-40E	UR 0338-15	SA-2, configuration undetermined			
19	Kaakhka SAM Site A01-2, [redacted]	37-22-40N 59-37-30E	UR 0338-20	SA-2, configuration undetermined			

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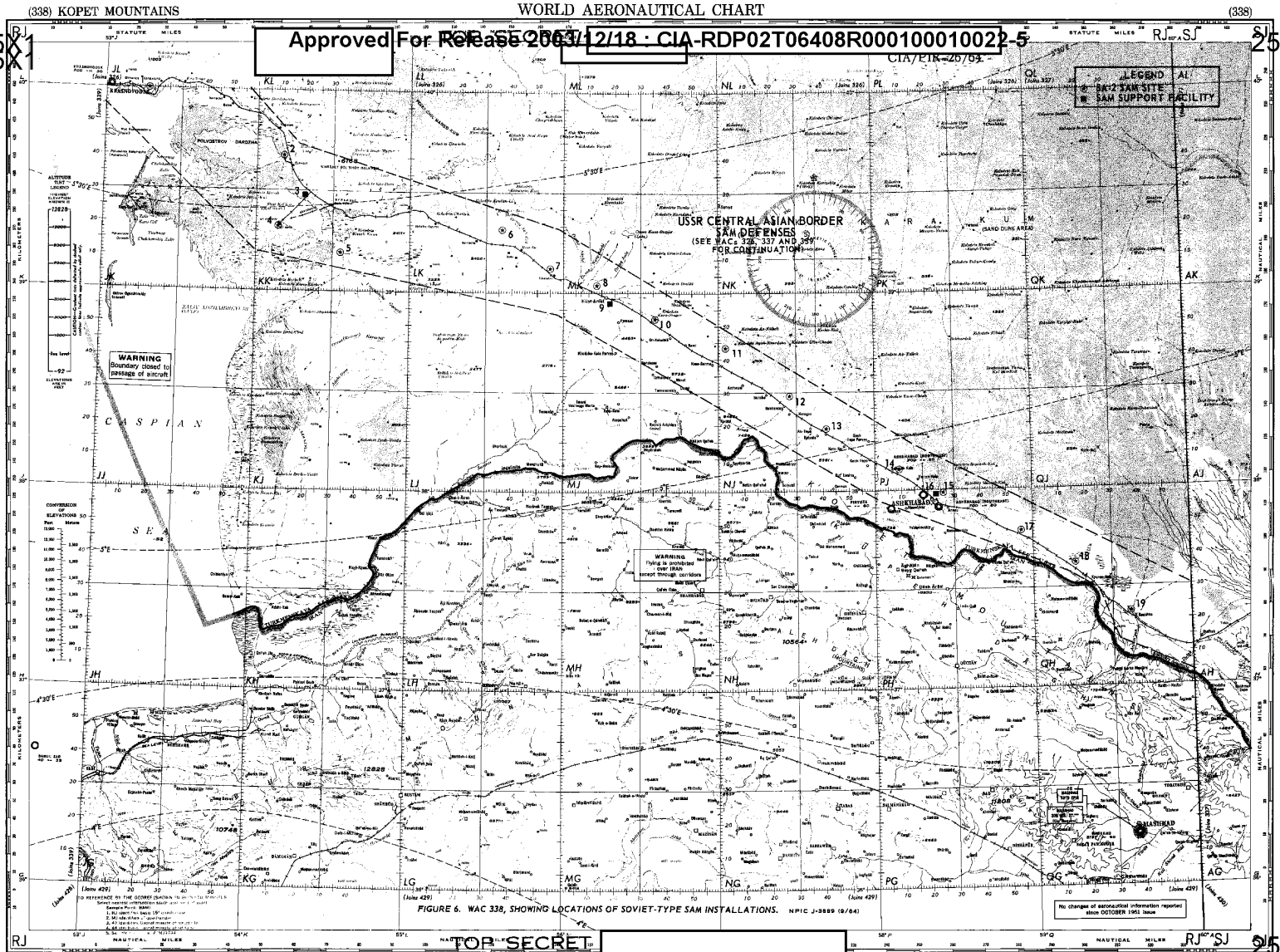

FIGURE 6. WAC 338, SHOWING LOCATIONS OF SOVIET-TYPE SAM INSTALLATIONS. NPIC J-3889 (9/64)

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Table 4. SAM Installations on WAC 339

Item	Name, Site Designator, & BE No	Coordinates	Country & Map Ref	Type & Configuration	Mission & Date First Appears	Mission & Date Installation Negated	Remarks
A. Ali Bayramly SAM Defenses (in defense of Salyany air defense sector headquarters and the central Asian border of USSR)							
1	Ali Bayramly SAM Site A17-2,	39-49-30N 48-58-00E	UR 0339-3	SA-2, fan			
B. USSR Central Asian Border SAM Defenses (in defense of the central Asian border of the USSR, and specific targets: Krasnovodsk, Black Sea port containing extensive petroleum refining and storage facilities; Nebit Dag Airfield and Dzhebel Airfield, medium bomber bases; Kizyl-Arvat Airfield, jet fighter base; Ashkhabad, capital of Turkmen SSR, large complex containing several major military installations, and several military airfields)							
2	Krasnovodsk SAM Site A20-2,	39-53-00N 52-56-00E	UR 0339-5	SA-2, fan			
3	Krasnovodsk SAM Support Facility,	39-59-10N 52-57-25E	UR 0339-5	Type II (square)			

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WAC 339

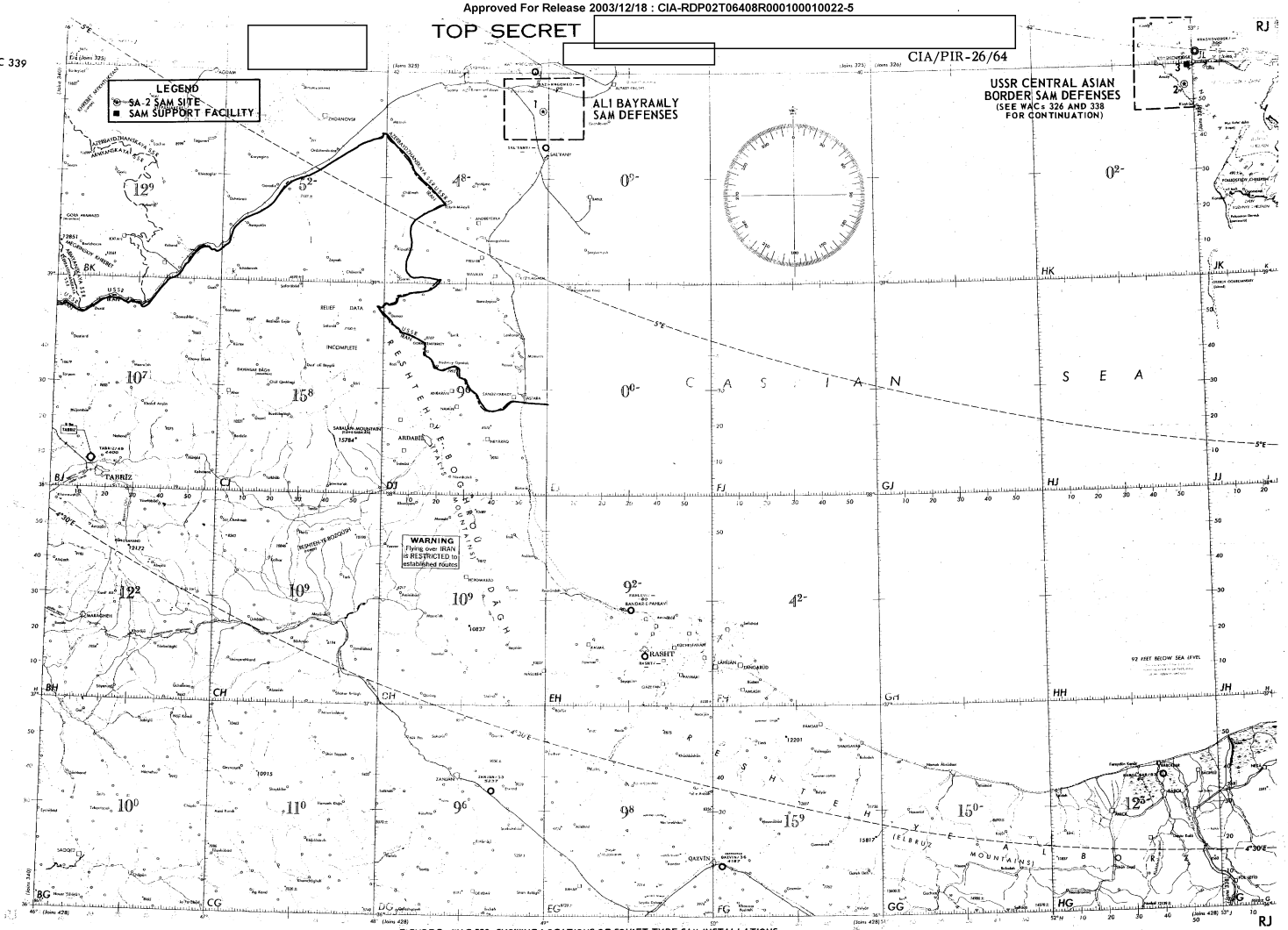

FIGURE 7. WAC 339, SHOWING LOCATIONS OF SOVIET-TYPE SAM INSTALLATIONS. NPIC J-3890 (9/64)

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SABALAN MOUNTAIN
IRAN - USSR
WAC 339

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Table 5. SAM Installations on WAC 340

Item	Name, Site Designator, & BE No	Coordinates	Country & Map Ref	Type & Configuration	Mission & Date First Appears	Mission & Date Installation Negated	Remarks
A. Yerevan SAM Defenses (in defense of Yerevan: major industrial complex including synthetic rubber, chemical, electrical machinery, and aluminum production)							
1	Yerevan SAM Site B16-2, [redacted]	39-59-00N 44-37-00E	UR 0340-5	SA-2, probable link	[redacted]		

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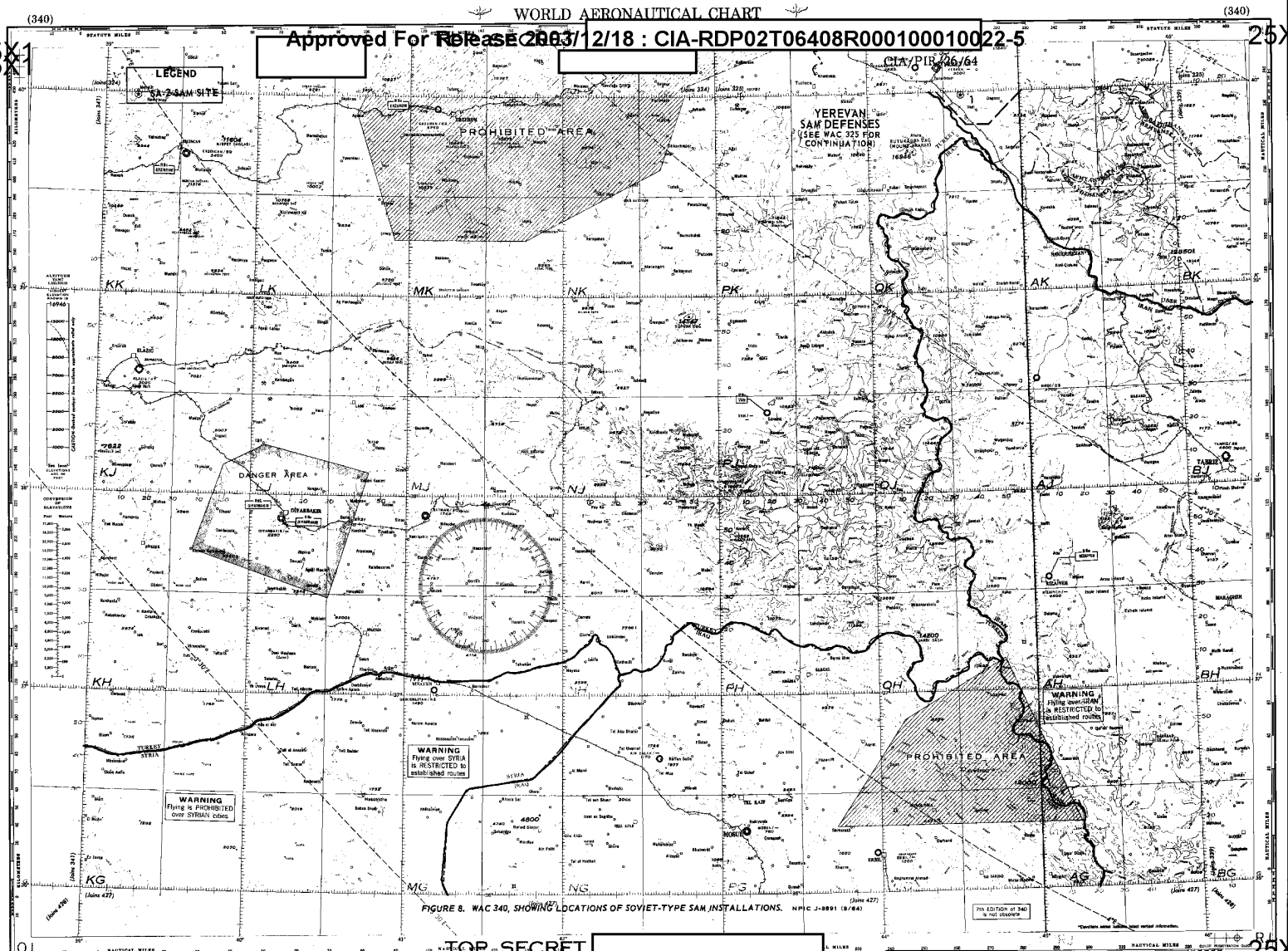

FIGURE 8. WAC 340, SHOWING LOCATIONS OF SOVIET-TYPE SAM INSTALLATIONS. NPIC J-2891 (9/64)

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Table 6. SAM Installations on WAC 380

Item	Name, Site Designator, & BE No	Coordinates	Country & Map Ref	Type & Configuration	Mission & Date First Appears	Mission & Date Installation Negated	Remarks
A. Pyongyang (North Korea) SAM Defense (in defense of Pyongyang, the capital of North Korea: major industrial and transportation center including iron and steel mills, railroad yards, and several civil and military airfields; Nampo Naval Base and shipyards may also be included within this defense area)							
1	Pyongyang SAM Site B23-2	38-48-00N 125-27-50E	KN 0380-7	SA-2, link			
2	Pyongyang Probable SAM Assembly Area,	38-51-10N 125-49-50E	KN 0380-8	See remarks			This installation is not a typical SAM support facility. It consisted, on of groups of SAM equipment parked in open storage areas.
3	Pyongyang SAM Site B17-2	38-45-10N 125-51-00E	KN 0380-8	SA-2, link			

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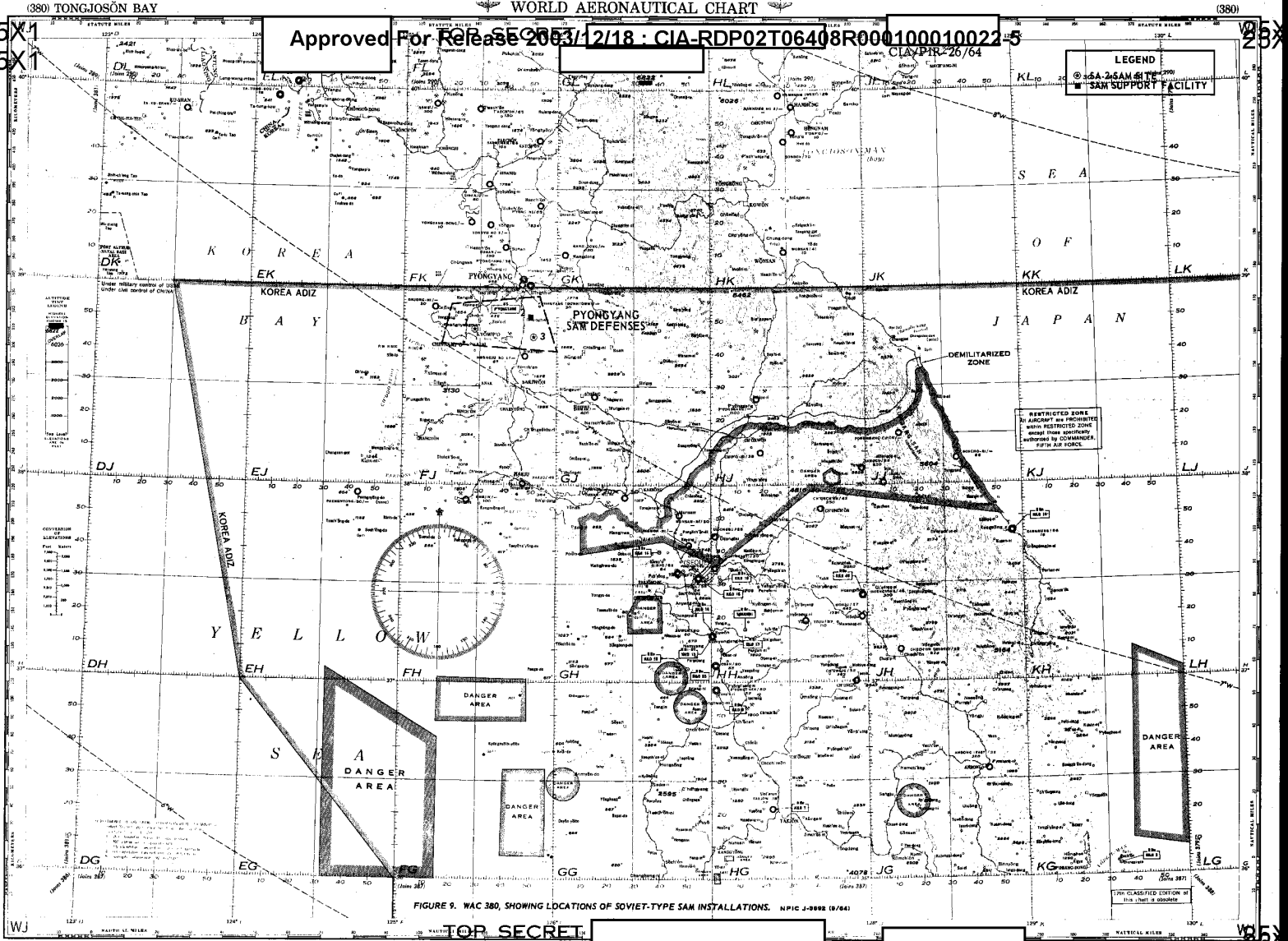

FIGURE 9. WAC 380, SHOWING LOCATIONS OF SOVIET-TYPE SAM INSTALLATIONS. NPIC J-9592 (8/64)

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Table 7. SAM Installations on WAC 381

Item	Name, Site Designator, & BE No	Coordinates	Country & Map Ref	Type & Configuration	Mission & Date First Appears	Mission & Date Installation Negated	Remarks
A. Peiping (China) SAM Defenses (in defense of Peiping, the capital of Communist China: major industrial and transportation center containing numerous light and heavy industries, several military airfields and encampments, and a rocket development center)							
1	Peiping SAM Site B26-2,	39-51-30N 116-09-00E	CH 0381-1	SA-2, link			
2	Peiping SAM Site B19-2,	39-39-20N 116-23-30E	CH 0381-1	SA-2, star			
3	Peiping SAM Site C18-2,	39-34-00N 116-24-40E	CH 0381-1	SA-2, link			
4	Peiping SAM Site B12-2,	39-47-58N 116-41-55E	CH 0381-1	SA-2, link			
B. Te-chou (China) SAM Site (in defense of Ku-cheng Airfield--a large military airfield)							
5	Te-chou SAM Site A30-2,	37-30-20N 116-07-35E	CH 0381-16	SA-2, configuration undetermined			This SAM site appears to have only 5 launch positions located on a circular road.

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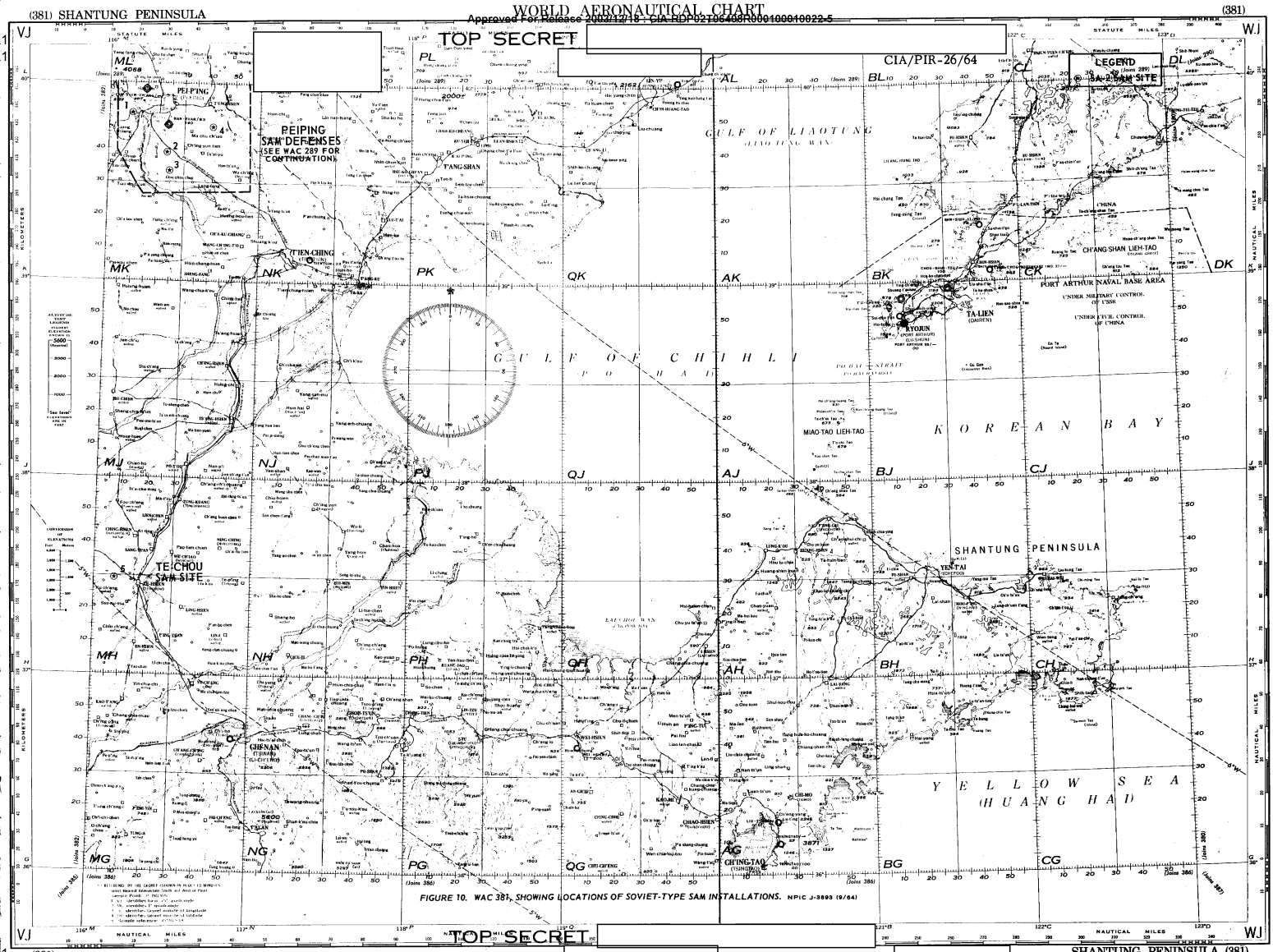

FIGURE 10. WAC 381, SHOWING LOCATIONS OF SOVIET-TYPE SAM INSTALLATIONS. NPIC J-3893 (9/64)

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Table 8. SAM Installations on WAC 383

Item	Name, Site Designator, & BE No	Coordinates	Country & Map Ref	Type & Configuration	Mission & Date First Appears	Mission & Date Installation Negated	Remarks
A. Chung-wei SAM Site (defense role undetermined)							
1	Chung-wei SAM Site C02-2 [redacted]	37-54N 105-17E	CH 0383-13	SA-2, configuration undetermined	[redacted]		Due to lack of map details, this site has not been plotted to seconds.

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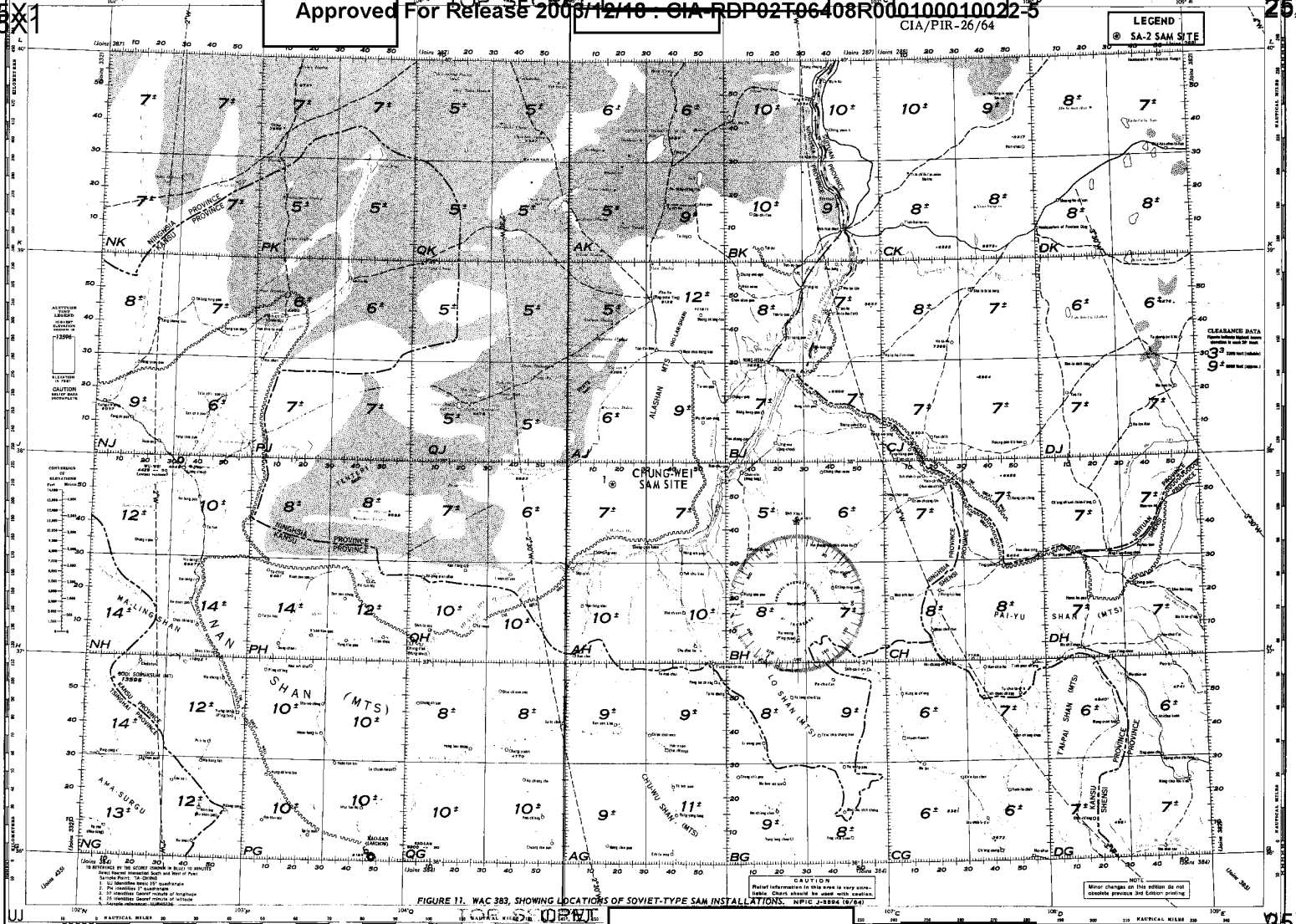

FIGURE 11. WAC 383, SHOWING LOCATIONS OF SOVIET-TYPE SAM INSTALLATIONS. NPIC J-8894 (9/64)

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Table 9. SAM Installations on WAC 384

Item	Name, Site Designator, & BE No	Coordinates	Country & Map Ref	Type & Configuration	Mission & Date First Appears	Mission & Date Installation Negated	Remarks
A. Feng-hsiang SAM Site (defense role undetermined)							
1	Feng-hsiang SAM Site A10-3 [redacted]	34-31-30N 107-28-40E	CH 0384-9	SA-2, configuration undetermined	[redacted]		
B. Hsi-an SAM Defenses (in defense of Hsi-an)							
2	Hsi-an SAM Site C25-2 [redacted]	34-08-32N 108-34-55E	CH 0384-15	SA-2, configuration undetermined			
3	Hsi-an SAM Site B32-2	34-27-20N 108-46-20E	CH 0384-10	SA-2, configuration undetermined			
4	Hsi-an SAM Site [redacted]	34-40-40N 108-59-50E	CH 0384-10	SA-2, configuration undetermined			This SAM site originally consisted of just 3 launch positions. When seen on [redacted] photography [redacted], an additional three launch positions were being added.

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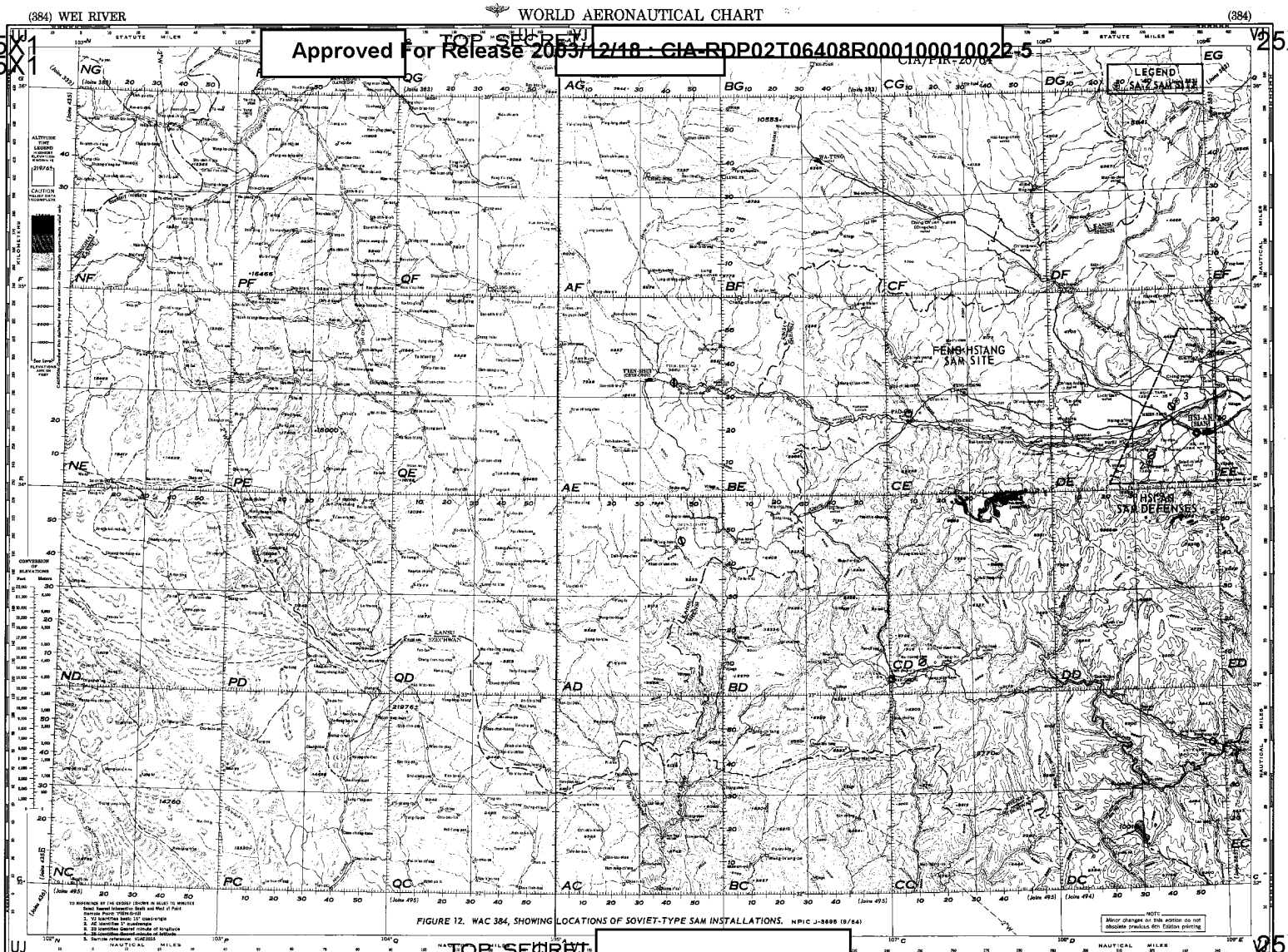

FIGURE 12. WAC 384, SHOWING LOCATIONS OF SOVIET-TYPE SAM INSTALLATIONS. NPIC J-3695 (9/64)

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Table 10. SAM Installations on WAC 427

Item	Name, Site Designator, & BE No	Coordinates	Country & Map Ref	Type & Configuration	Mission & Date First Appears	Mission & Date Installation Negated	Remarks
A. Baghdad SAM Site (see remarks)							
1	Abu Ghuragh SAM Site	33-19-00N 44-13-00E	IQ 427-19	SA-2, see remarks	[redacted]		This site consists of a paved square perimeter road and 7 paved aprons--6 for the launch positions and one for the guidance area. On the most recent photography available, the site had been dismantled, and the equipment was parked nearby, in a travel position.

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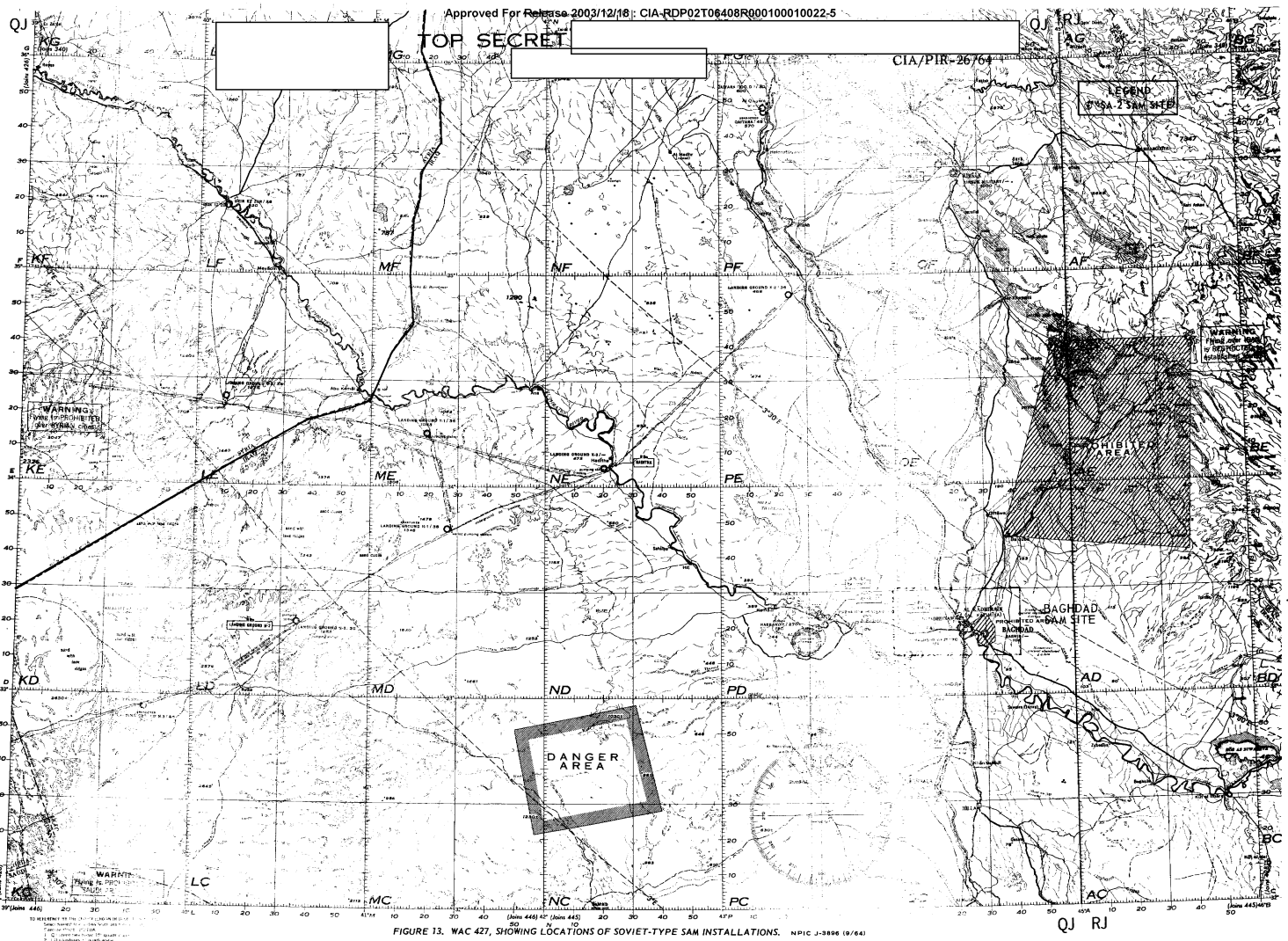

FIGURE 13. WAC 427, SHOWING LOCATIONS OF SOVIET-TYPE SAM INSTALLATIONS. NPIC J-3896 (9/64)

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Table 11. SAM Installations on WAC 447

Item	Name, Site Designator, & BE No	Coordinates	Country & Map Ref	Type & Configuration	Mission & Date First Appears	Mission & Date Installation Negated	Remarks
A. Al Iskandariyah (Egypt) SAM Defenses (in defense of Al Iskandariyah, second largest city in Egypt: contains numerous military installations, including the naval base which serves as headquarters for the Egyptian Navy; shipyard, port facilities, industrial installations, and POL storage areas)							
1	Al Iskandariyah SAM Site B05-2,	31-18-40N 30-03-20E	EG 0447-1	SA-2, configuration undetermined			
2	Al Iskandariyah SAM Support Facility,	31-18-40N 30-03-25E	EG 0447-1	Type II (square)			
B. Cairo (Egypt) SAM Defenses (in defense of Cairo, the capital city of Egypt, large complex containing military and industrial installations, several large airfields, POL refining and storage facilities, and rail facilities)							
3	Cairo SAM Site C27-2,	30-02-50N 30-50-05E	EG 0447-11	SA-2, link			
4	Cairo SAM Site Alt B27-2	30-02-45N 30-52-20E	EG 0447-11	SA-2, configuration undetermined			
5	Cairo SAM Site Alt B27-2	30-02-00N 30-52-50E	EG 0447-11	SA-2, configuration undetermined			
6	Cairo SAM Site B27-2,	30-01-50N 30-53-20E	EG 0447-11	SA-2, link			
7	Dashur SAM Training Facility,	29-48-15N 31-08-00E	EG 0447-11, 12	See remarks			This facility consists of 2 SA-2 sites of undetermined configuration, and one probable SA-2 site.
8	Cairo SAM Site B21-2,	29-48-00N 31-09-00E	EG 0447-11	SA-2, link			
9	Cairo SAM Site Alt B21-2	29-48-00N 31-09-10E	EG 0447-11	SA-2, configuration undetermined			
10	Cairo SAM Site Alt B21-2	29-47-40N 31-09-00E	EG 0447-11	SA-2, configuration undetermined			
11	Cairo SAM Site B17-2	29-45-00N 31-21-00E	EG 0447-12	SA-2, link			
12	Cairo Alternate SAM Site	29-44-10N 31-21-35E	EG 0447-12	SA-2, configuration undetermined			This site consists of 6 unoccupied launch positions with shallow revetments.
13	Cairo Alternate SAM Site	29-44-05N 31-22-10E	EG 0447-12	SA-2, configuration undetermined			This site consists of 6 unoccupied launch positions with shallow revetments.
14	Cairo SAM Support Facility,	30-04-10N 31-22-30E	EG 0447-12	Type II (square)			
15	Cairo SAM Site B09-2,	30-04-25N 31-31-45E	EG 0447-12	SA-2, configuration undetermined			Two probable alternate sites are located northeast of the site along the site-access road.
16	Cairo SAM Site B09A-2,	30-05-15N 31-36-20E	EG 0447-12	SA-2, configuration undetermined			
17	Cairo SAM Site B04-2,	30-20-50N 31-28-40E	EG 0447-12	SA-2, link			
18	Cairo SAM Site B33-2,	30-17-25N 31-07-10E	EG 0447-12	SA-2, link			
C. As Suways (Egypt) SAM Defenses (in defense of the Suez Canal and As Suways: a large complex containing port facilities, shipyards, POL refineries and storage, a naval base, and several military installations)							
19	As Suways SAM Site B22-2,	29-43-20N 32-20-45E	EG 0447-12	SA-2, configuration undetermined			
20	As Suways SAM Support Facility,	29-59-55N 32-31-30E	EG 0447-13	Type II (square)			
21	As Suways SAM Site B15-2,	29-48-10N 32-42-30E	EG 0447-13	SA-2, link			

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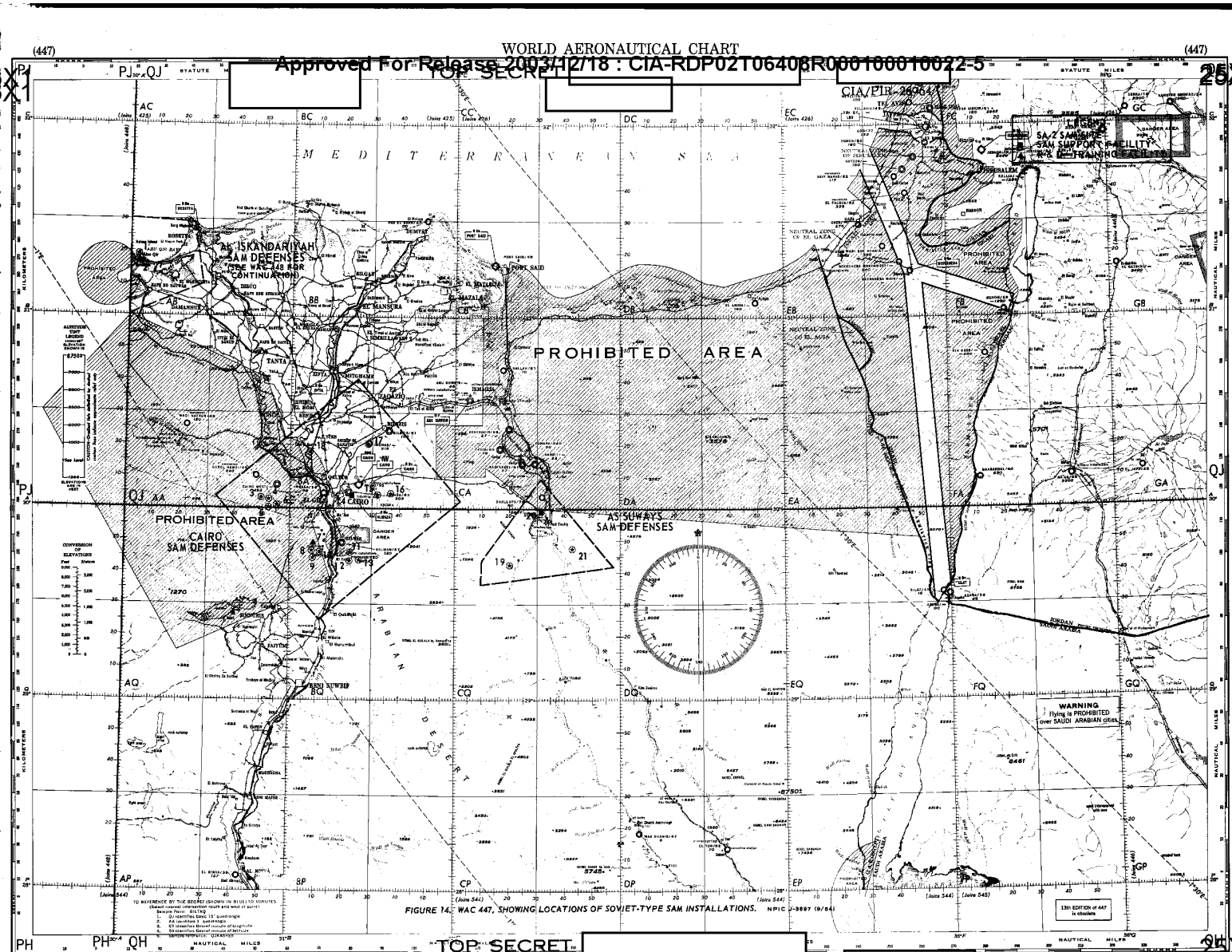

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Table 12. SAM Installations on WAC 448

Item	Name, Site Designator, & BE No	Coordinates	Country & Map Ref	Type & Configuration	Mission & Date First Appears	Mission & Date Installation Negated	Remarks
A. Al Iskandariyah (Egypt) SAM Defenses (in defense of Al Iskandariyah, second largest city in Egypt: contains numerous military installations, including the naval base which serves as headquarters for the Egyptian Navy; shipyard, port facilities, industrial installations and POL storage areas)							
1	Al Iskandariyah SAM Site B24-2,	31-05-10N 29-43-20E	EG 0448-10	SA-2, probable fan			

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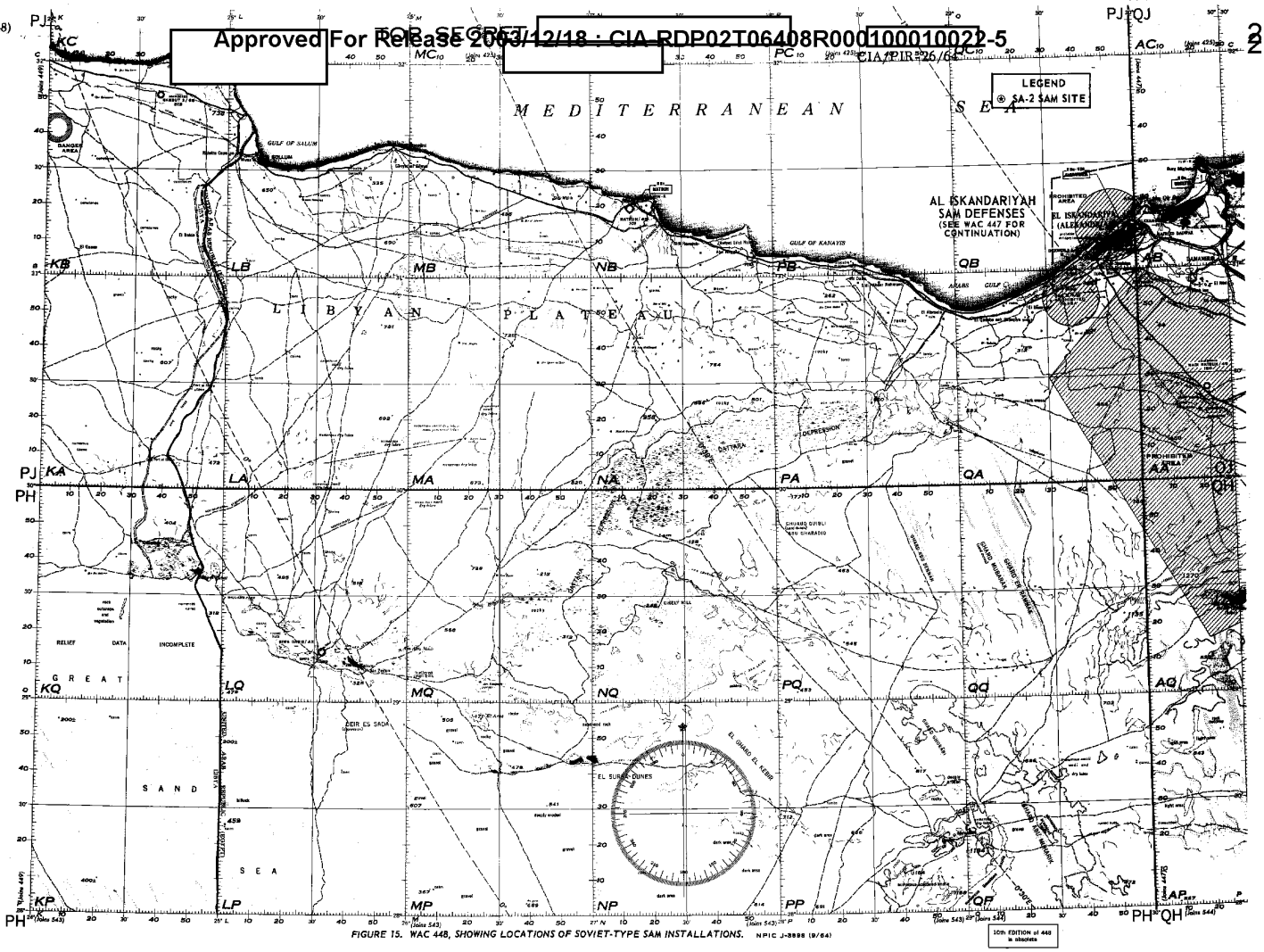

FIGURE 15. WAC 448, SHOWING LOCATIONS OF SOVIET-TYPE SAM INSTALLATIONS. NPIC J-3898 (9/64)

10th EDITION of 448 is obsolete

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LIBYAN PLATEAU (448)
LIBYA-UNITED ARAB REPUBLIC

Table 13. SAM Installations on WAC 560

Item	Name, Site Designator, & BE No	Coordinates	Country & Map Ref	Type & Configuration	Mission & Date First Appears	Mission & Date Installation Negated	Remarks
A. Baroda (India) SAM Site (This site probably serves only as a training site, and has no defensive function)							
1	Baroda SAM Site	22-18N 73-12E	India USATC, 100-560-8401	SA-2, link	[redacted]		This is a SAM training site. It was under construction in [redacted] 25X

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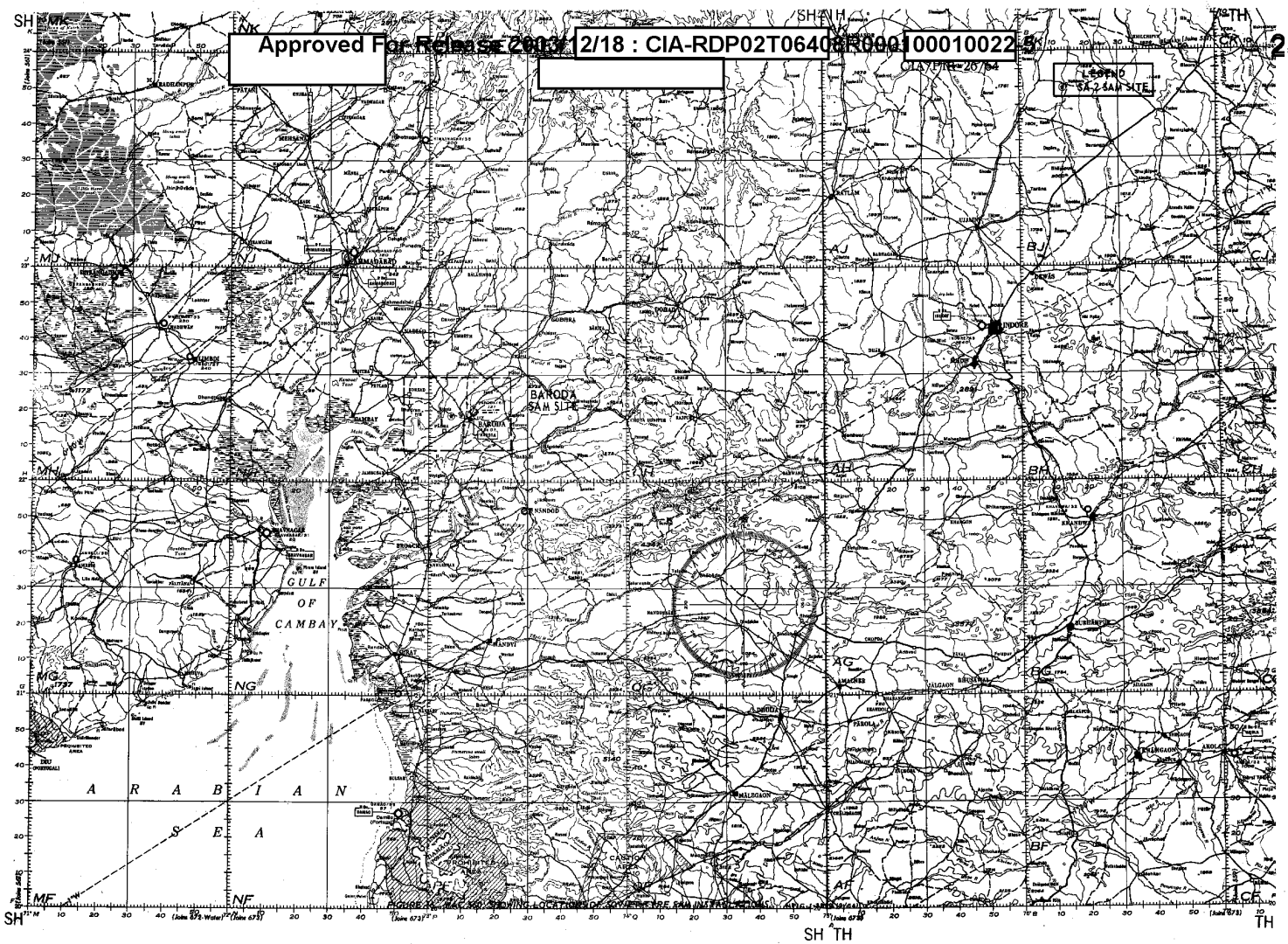

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Table 14. SAM Installations on WAC 567

Item	Name, Site Designator, & BE No	Coordinates	Country & Map Ref	Type & Configuration	Mission & Date First Appears	Mission & Date Installation Negated	Remarks
A. Aswan (Egypt) SAM Site (in defense of Aswan Dam)							
1	Aswan SAM Site B22-2, [redacted]	23-56-00N 32-44-00E	EG, USATC Series 50 0567-3/ZMA	SA-2, configuration undetermined	[redacted]		

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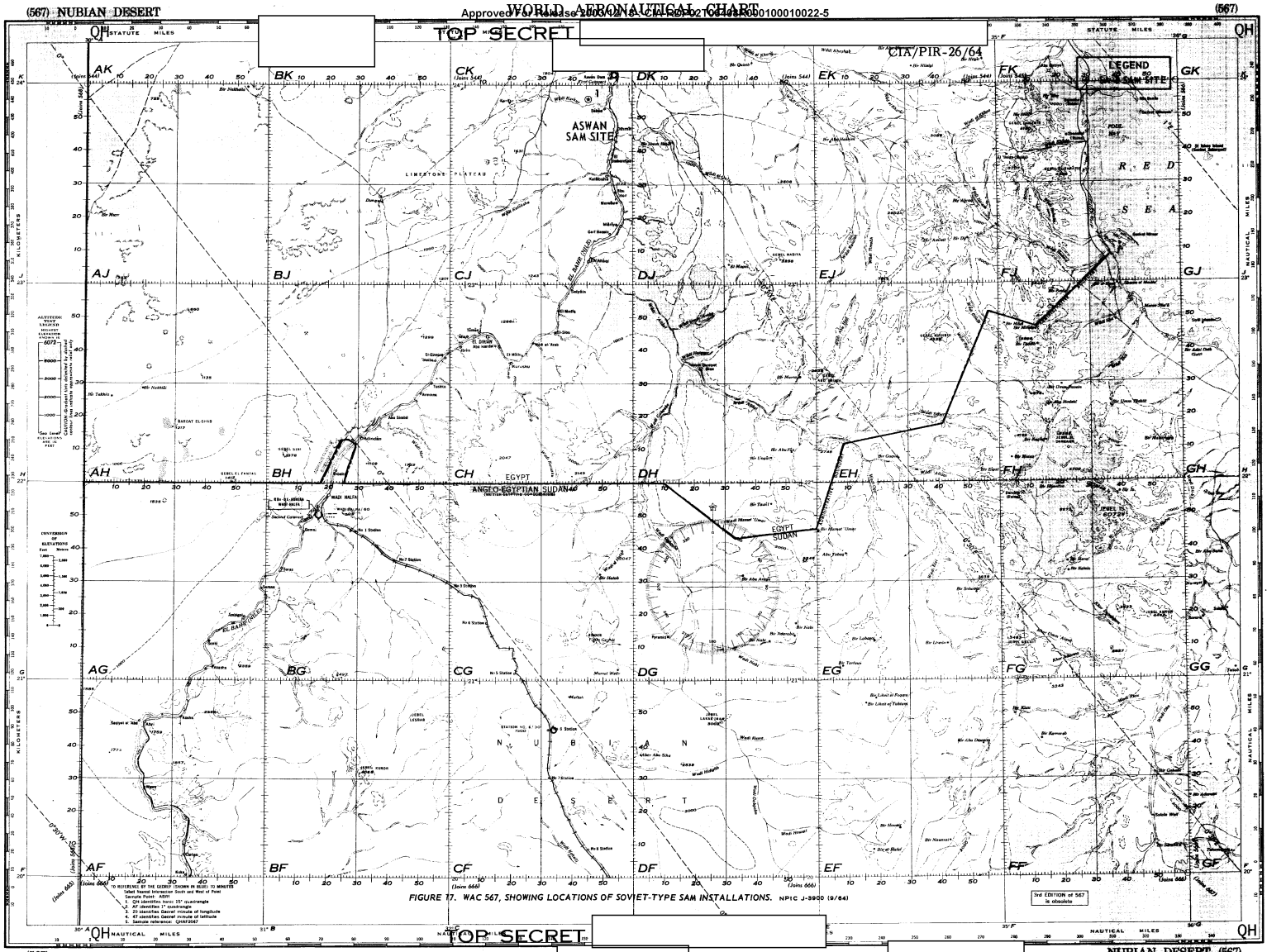

FIGURE 17. WAC 567, SHOWING LOCATIONS OF SOVIET-TYPE SAM INSTALLATIONS. NPIC J-3900 (9/64)

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Table 15. SAM Installations on WAC 585

Item	Name, Site Designator, & BE No	Coordinates	Country & Map Ref	Type & Configuration	Mission & Date First Appears	Mission & Date Installation Negated	Remarks
A. Cuban SAM Defenses (with the exception of the Havana and Santa Clara areas, the SAM sites in Cuba cannot easily be grouped into defense complexes. The original SAM deployment in Cuba constituted a well-defined perimeter defense of the complete island. More recently, the deployment pattern has been changed, and now the general rule seems to be the defense of critical targets by a single site. Most of the abandoned sites in Cuba can be attributed to this change in emphasis).							
1	Victoria de las Tunas SAM Assembly Area,	21-04-40N 77-00-00W	CU 0585-16	See remarks			This is not a standard SAM support facility. It consists of equipment stacked in the open, and several buildings randomly arranged.
2	Chaparra SAM Site,	21-07-20N 76-26-20W	CU 0585-16	SA-2, star			This site has been abandoned.
3	Holguin SAM Site,	20-52-32N 76-27-20W	CU 0585-16	SA-2, link			This site is in defense of Holguin Airfield and several military installations in the area.
4	Los Angeles SAM Site,	21-00-40N 75-41-43W	CU 0585-16	SA-2, probable star			This site is probably in defense of the Banes Naval Installation, Hq Eastern Naval District and the Banes Cruise-Missile Installation.
5	Preston SAM Site,	20-44-17N 75-38-55W	CU 0585-22	SA-2, star			This site may be in defense of the copper and zinc complex at Nicaro.
6	Nicaro SAM Site	20-42-07N 75-35-05W	CU 0585-22	SA-2, configuration undetermined			This site has been abandoned.
7	Jiguani SAM Site,	20-21-00N 76-20-00W	CU 0585-21	SA-2, configuration undetermined			This site has been abandoned.
8	Santiago de Cuba SAM Assembly Area,	20-03-10N 75-53-20W	CU 0585-21	See remarks			This is not a standard SAM support facility. It consists of equipment parked in the open around a random assortment of buildings.
9	Maldonado SAM Site,	20-12-25N 75-28-45W	CU 0585-22	SA-2, star			This site is in defense of numerous military installations in the area. It is also quite close to the U.S. Naval Base at Guantanamo Bay.
10	Cabanas SAM Site,	20-06-20N 75-20-15W	CU 0585-22	SA-2, configuration undetermined			This site has been abandoned.

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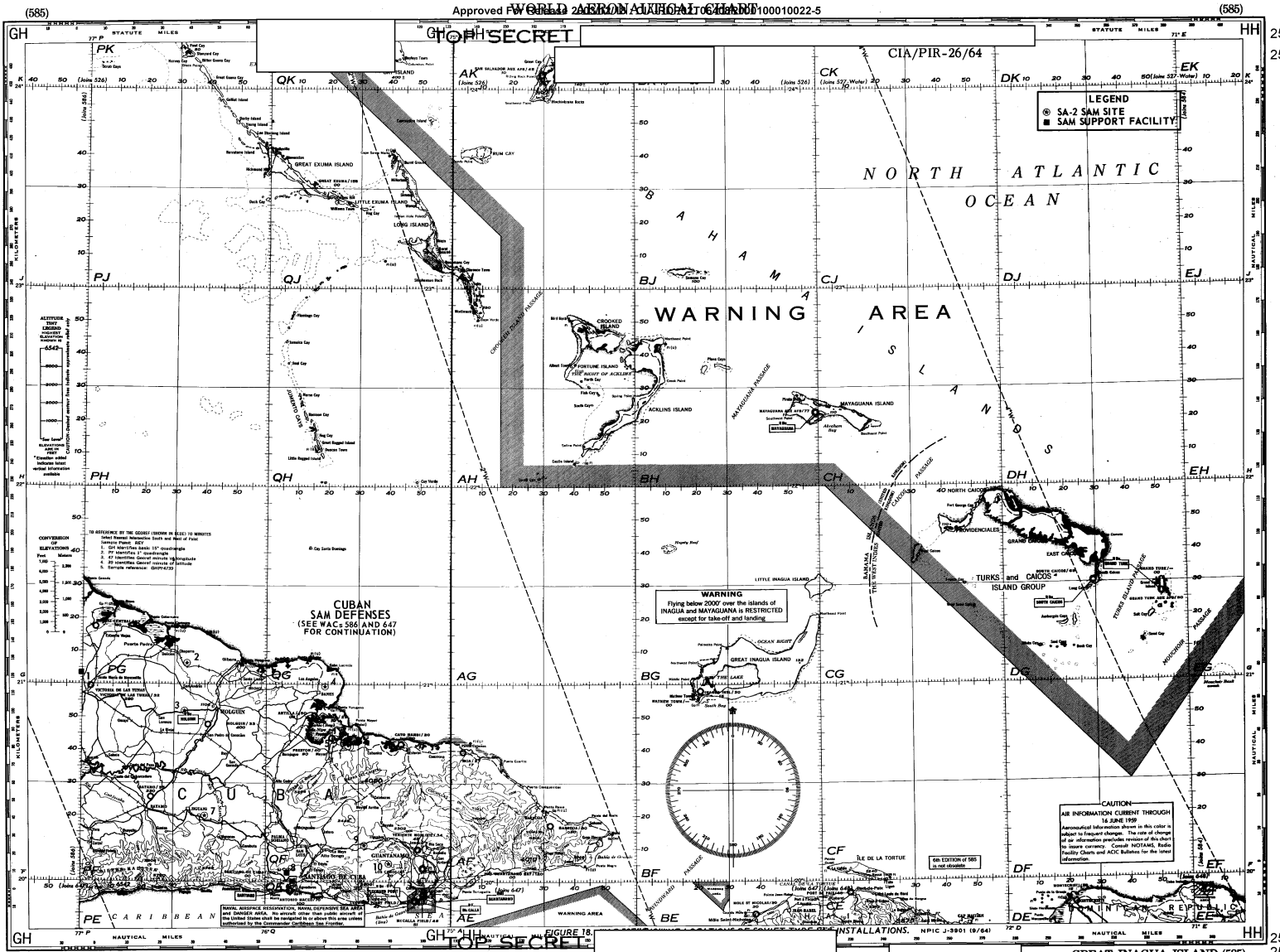

FIGURE 18. [illegible] INSTALLATIONS. NPIC J-3901 (9/64)

GREAT INAGUA ISLAND (585)
BAHAMA ISLANDS - THE WEST INDIES - CUBA - HAITI - DOMINICAN REPUBLIC

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Table 16. SAM Installations on WAC 586

Item	Name, Site Designator, & BE No	Coordinates	Country & Map Ref	Type & Configuration	Mission & Date First Appears	Mission & Date Installation Negated	Remarks
A. Cuban SAM Defenses (with the exception of the Havana and Santa Clara areas, the SAM sites in Cuba cannot be easily grouped into defense complexes. The original SAM deployment in Cuba constituted a well-defined perimeter defense of the complete island. More recently, the deployment pattern has been changed, and now the general rule seems to be the defense of critical targets by a single site. Most of the abandoned sites in Cuba can be attributed to this change of emphasis)							
1	Cabanas SAM Site,	22-58-36N 82-58-48W	CU 0586-6	SA-2, link			This site is in defense of Cabanas Naval Base.
2	Mariel SAM Site	23-00-55N 82-49-30W	CU 0586-6	SA-2, star			This site is inactive.
3	Mariel SAM Site 2	23-00-45N 82-48-50W	CU 0586-6	SA-2, configuration undetermined			This site is in defense of Mariel Naval Base, seaplane station, and Mariel port.
4	Majana SAM Site,	22-41-20N 82-49-50W	CU 0586-6	SA-2, configuration undetermined			The defensive role of this site cannot be determined.
5	Siguanea SAM Site,	21-37-33N 82-57-33W	CU 0586-11	SA-2, star			This site is in defense of airfields, naval facilities and the cruise-missile site on the Isle of Pines.
6	Punta Brava SAM Site,	23-01-27N 82-31-33W	CU 0586-6	SA-2, configuration undetermined			This site is in defense of Havana.
7	Torrens SAM Assembly Area,	22-57-45N 82-27-54W	CU 0586-6	See remarks			This is not a standard SAM support facility.
8	La Salud SAM Site,	22-53-07N 82-24-42W	CU 0586-6	SA-2, star			This site is probably in defense of Havana.
9	Santiago de las Vegas SAM Assembly Area,	22-57-40N 82-21-30W	CU 0586-6	See remarks			This is not a standard SAM support facility. It consists of several large warehouse-type buildings, and equipment in the open.
10	Guara SAM Site,	22-48-42N 82-13-42W	CU 0586-6	SA-2, configuration undetermined			This site is in defense of Havana.
11	Managua SAM Site,	22-59-45N 82-15-55W	CU 0586-6	SA-2, star			This site is probably in defense of Havana.
12	Havana SAM Site	23-09-25N 82-13-32W	CU 0586-6	SA-2, star			This site is in defense of Havana.
13	Matanzas SAM Site,	23-01-50N 81-29-14W	CU 0586-7	SA-2, link			This site is in defense of Matanzas port and several military installations.
14	Deleite SAM Site,	22-59-31N 80-45-47W	CU 0586-7	SA-2, star			This site has been abandoned.
15	Deleite Alternate SAM Site	23-01-30N 80-44-49W	CU 0586-7	SA-2, star			This site has been abandoned.
16	Sagua la Grande SAM Site,	22-51-10N 80-05-50W	CU 0586-7	SA-2, star			This site has been abandoned.
17	Cifuentes SAM Assembly Area,	22-36-12N 80-05-06W	CU 0586-8	See remarks			This is not a standard SAM support facility.
18	Mata SAM Site	22-35-54N 79-55-02W	CU 0586-8	SA-2, configuration undetermined			This site is in defense of Camillo Cienfuegos Airfield, and several military installations in the area.

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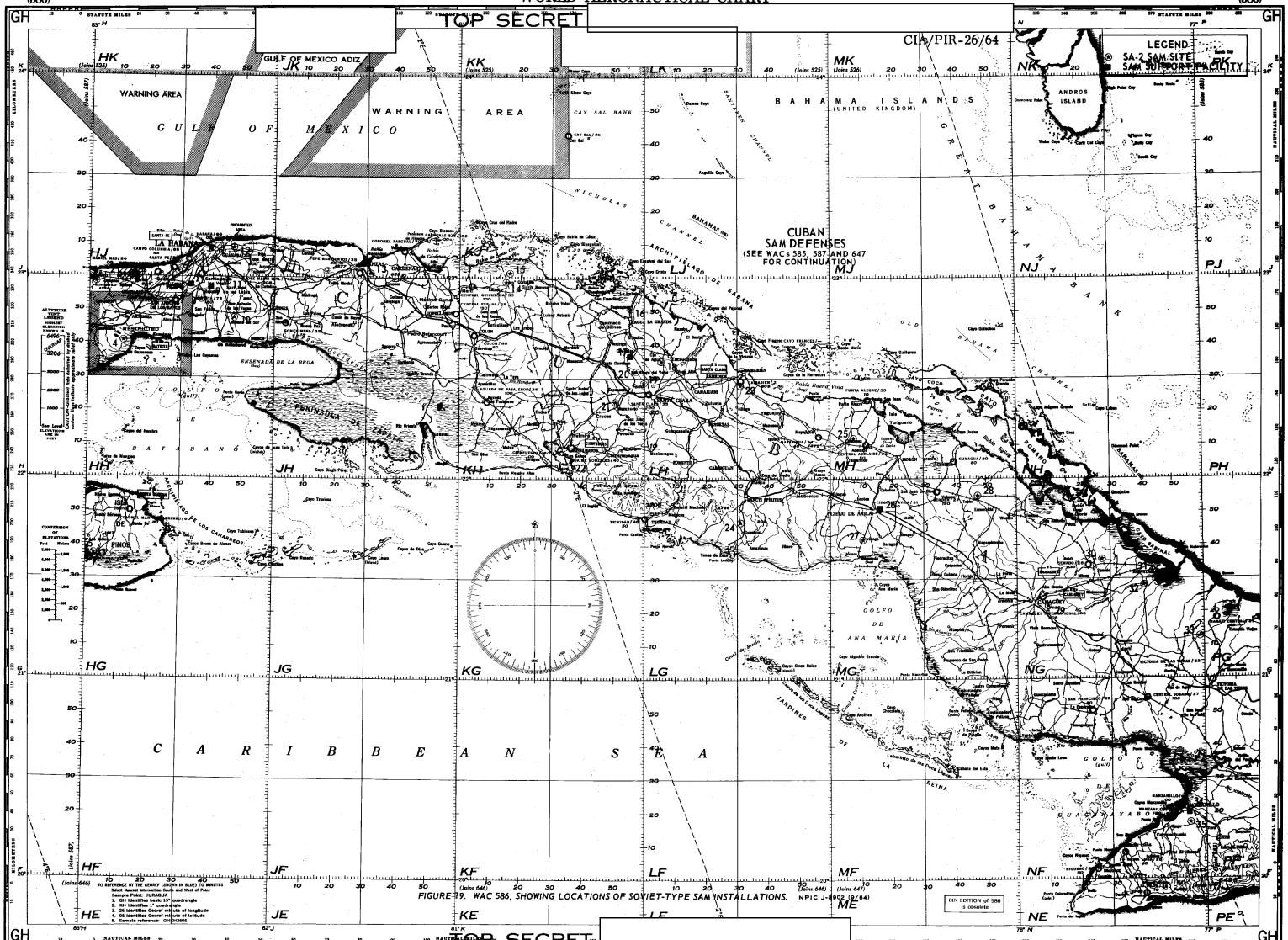
LEGEND
SA-2 SAM SITE
SAM SUPPORT FACILITY
CUBAN SAM DEFENSES
(SEE WAC's 585, 587 AND 647 FOR CONTINUATION)
WARNING AREA
GULF OF MEXICO ADIZ
WARNING AREA
GULF OF MEXICO
BAHAMA ISLANDS
(UNITED KINGDOM)
CARIBBEAN SEA
PENINSULA DE ZAPATA
GOLFO DE ANA MARIA
GULF OF GUACANAYABO
LA HABANA
ANDROS ISLAND
GREAT BAHAMA BANK
NICHOLAS CHANNEL
BAHAMAS
ARCHIPIELAGO DE CUBA
OLD BAHAMA CHANNEL
CAY SAL BANK
CAYSTACKS CHANNEL
ENSENADA DE LA BROA
JARDINES DE LA REINA
ARCHIPIELAGO DE LOS CANARREOS
CANAL DE LOS COLONOS
CANAL DE LOS CAMARONES
CANAL VIEJO DE BAHAMA
CANAL DE SAN NICOLAS
CANAL DE SANTA MARIA
CANAL DE LOS JARDINES
CANAL DE LOS ROMANOS
CANAL DE LA REINA
CANAL DE LA JUVENTUD
CANAL DE LOS PINOS
CANAL DE LOS CAMARONES
CANAL DE LOS COLON

Table 16. (Continued)

Item	Name, Site Designator, & BE No	Coordinates	Country & Map Ref	Type & Configuration	Mission & Date First Appears	Mission & Date Installation Negated	Remarks
19	Santa Clara SAM Site, [redacted]	22-29-00N 80-00-00W	CU 0586-8	SA-2, configuration undetermined			This site is in defense of Camillo Cienfuegos Airfield, and several military installations in the area.
20	San Diego del Valle SAM Site	22-32-15N 80-03-10W	CU 0586-8	SA-2, configuration undetermined			This site is in defense of Camillo Cienfuegos Airfield, and several military installations in the area.
21	Ranchuelo SAM Site	22-28-48N 80-10-01W	CU 0586-8	SA-2, configuration undetermined			This site is in defense of Camillo Cienfuegos Airfield, and several military installations in the area.
22	Cienfuegos SAM Site, [redacted]	22-02-50N 80-24-20W	CU 0586-13	SA-2, link			This site has been abandoned.
23	Caibarien SAM Site [redacted]	22-28-15N 79-29-35W	CU 0586-8	SA-2, star			This site is in defense of the military installation at Remedios.
24	Sancti Spiritus SAM Site, [redacted]	21-47-45N 79-29-30W	CU 0586-13	SA-2, star			This site has been abandoned.
25	Chambas SAM Site, [redacted]	22-13-20N 78-53-30W	CU 0586-14	SA-2, link			This site has been abandoned.
26	Ciego de Avila SAM Assembly Area, [redacted]	21-51-50N 78-44-01W	CU 0586-14	See remarks			This was not a standard SAM support facility. It consisted of equipment stacked in the open. Presently this area is abandoned.
27	Ciego de Avila SAM Site, [redacted]	21-42-13N 78-50-21W	CU 0586-14	SA-2, star			This site has been abandoned.
28	Esmeralda SAM Site, [redacted]	21-55-48N 78-13-18W	CU 0586-14	SA-2, star			This site has been abandoned.
29	Camaguey SAM Site,	21-22-55N 77-50-10W	CU 0586-20	SA-2, configuration undetermined			This site is in defense of Camaguey Airfield and several military installations in the area.
30	Senado SAM Site, [redacted]	21-36-30N 77-33-31W	CU 0586-15	SA-2, link			This site has been abandoned.
31	Nuevitas SAM Site 2, [redacted]	21-32-50N 77-17-48W	CU 0586-20	SA-2, configuration undetermined			This site is in defense of the Nuevitas port facilities and military installations in the Camaguey area.
32	Nuevitas SAM Site	21-28-48N 77-20-45W	CU 0586-20	SA-2, configuration undetermined			This site has been abandoned.
33	Manati SAM Site, [redacted]	21-13-45N 77-02-15W	CU 0586-20	SA-2, link			This site has been abandoned.
34	Manzanillo SAM Assembly Area, [redacted]	20-18-45N 77-06-05W	CU 0586-25	See remarks			This was not a standard SAM support facility. It consisted of equipment parked in the open, immediately adjacent to Manzanillo SAM Site. This area is now abandoned.
35	Manzanillo SAM Site, [redacted]	20-18-20N 77-06-08W	CU 0586-25	SA-2, star			This site has been abandoned.

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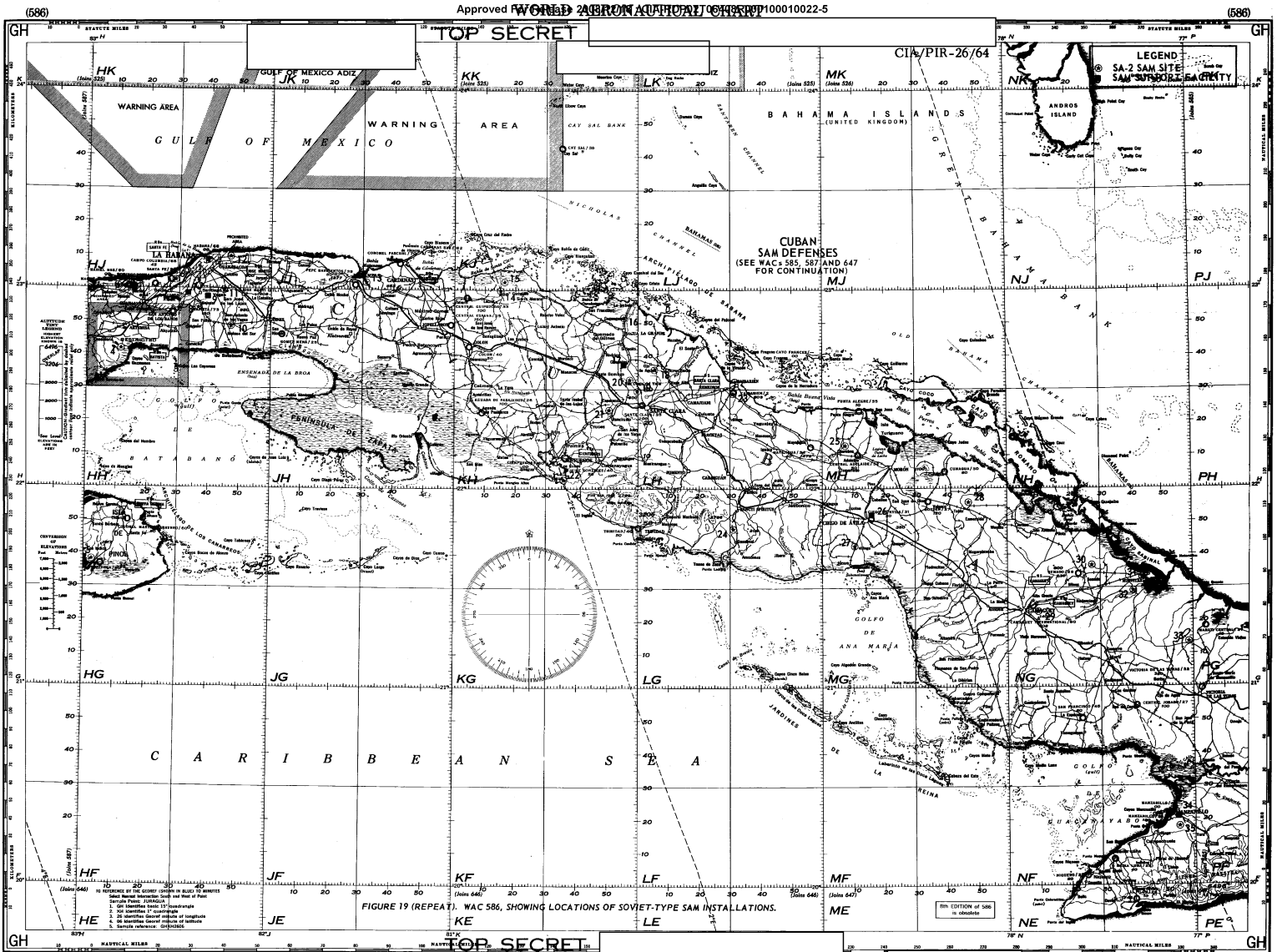

FIGURE 19 (REPEAT). WAC 586, SHOWING LOCATIONS OF SOVIET-TYPE SAM INSTALLATIONS.

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(586) GULF OF GUACANAYABO (586)
BAHAMA ISLANDS-CUBA

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Table 17. SAM Installations on WAC 587

Item	Name, Site Designator, & BE No	Coordinates	Country & Map Ref	Type & Configuration	Mission & Date First Appears	Mission & Date Installation Negated	Remarks
A. Cuban SAM Defenses (with the exception of the Havana and Santa Clara areas, the SAM sites in Cuba cannot easily be grouped into defense complexes. The original SAM deployment in Cuba constituted a well-defined perimeter defense of the complete island. More recently, the deployment pattern has been changed, and now the general rule seems to be the defense of critical targets by a single site. Most of the abandoned sites in Cuba can be attributed to this change in emphasis).							
1	Santa Lucia SAM Site, [redacted]	22-41-50N 83-55-45W	CU 0587-10	SA-2, configuration undetermined	[redacted]		This site has been abandoned.
2	Santa Lucia Alternate SAM Site	22-43-40N 83-49-50W	CU 0587-10	SA-2, star			This site has been abandoned.
3	Bahia Honda SAM Site [redacted]	22-57-25N 83-17-20W	CU 0587-10	SA-2, link			This site has been abandoned.
4	Pinar del Rio SAM Assembly Area [redacted]	22-21-09N 83-39-15W	CU 0587-15	See remarks			This is not a standard SAM support facility, but consists of several buildings, and equipment stored in the open. This site is possibly in defense of Pinar del Rio military installation.
5	La Coloma SAM Site 2 [redacted]	22-19-37N 83-34-50W	CU 0587-15	SA-2, configuration undetermined			This site has been abandoned.
6	La Coloma SAM Site [redacted]	22-18-42N 83-32-35W	CU 0587-15	SA-2, star			This site is deployed in defense of San Julian Airfield. Located approximately .2 nm northwest of this site is an unrevetted, unimproved site, which first appeared in late [redacted] This site has been abandoned.
7	San Julian Airfield SAM Site, [redacted]	22-05-28N 84-08-58W	CU 0587-15	SA-2, star			

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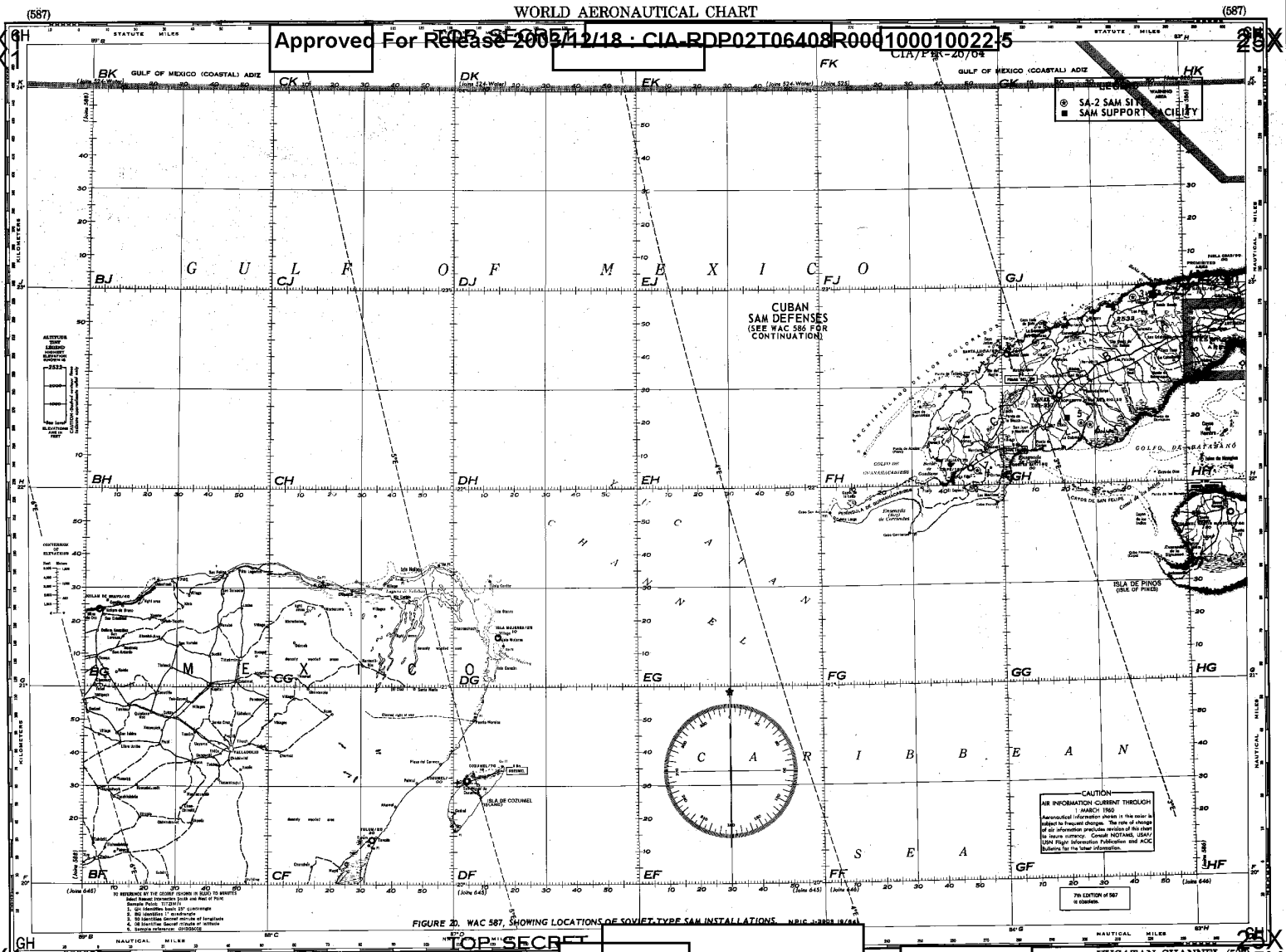

FIGURE 20. WAC 587, SHOWING LOCATIONS OF SOVIET-TYPE SAM INSTALLATIONS. NPIC H-3809 (6/64)

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Table 18. SAM Installations on WAC 647

Item	Name, Site Designator, & BE No	Coordinates	Country & Map Ref	Type & Configuration	Mission & Date First Appears	Mission & Date Installation Negated	Remarks
A. Cuban SAM Defenses (with the exception of the Havana and Santa Clara areas, the SAM sites in Cuba cannot easily be grouped into defense complexes. The original SAM deployment in Cuba constituted a well-defined perimeter defense of the complete island. More recently, the deployment pattern has been changed, and now the general rule seems to be the defense of critical targets by a single site. Most of the abandoned sites in Cuba can be attributed to this change in emphasis)							
1	Santiago de Cuba SAM Site, [redacted]	19-59-20N 75-50-58W	CU 0647-3	SA-2, link	[redacted]		This site is in defense of Santiago de Cuba: port facilities, naval base, POL refineries and storage, and several military installations.

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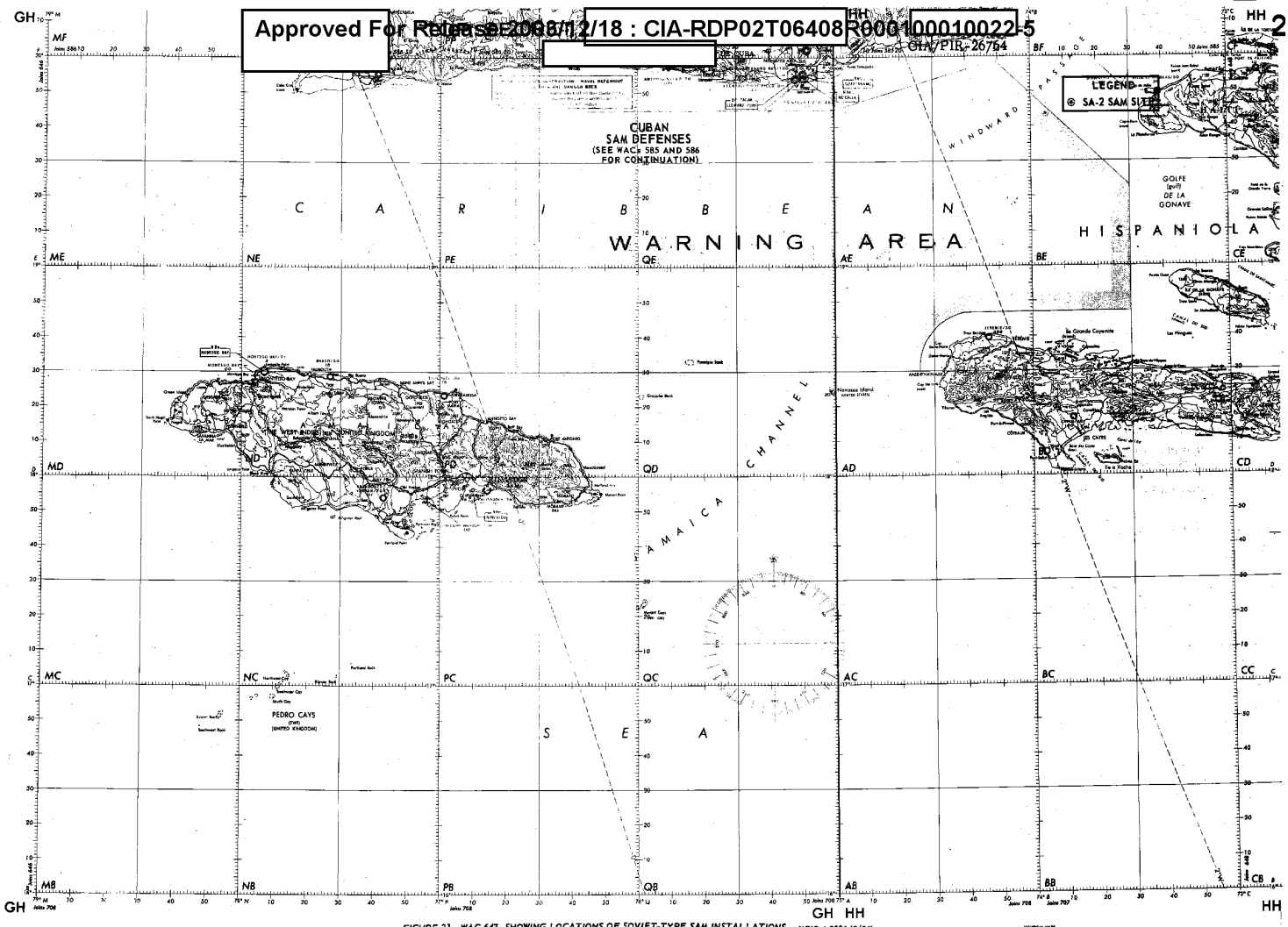

FIGURE 21. WAC 647, SHOWING LOCATIONS OF SOVIET-TYPE SAM INSTALLATIONS. NPIC J-3904 (9/64)

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Table 19. SAM Installations on WAC 988

Item	Name, Site Designator, & BE No	Coordinates	Country & Map Ref	Type & Configuration	Mission & Date First Appears	Mission & Date Installation Negated	Remarks
A. Djakarta (Indonesia) SAM Defenses (in defense of Djakarta, capital and largest city of Indonesia, and of the port city of Tandjungpriok)							
1	Djakarta SAM Site Kampung Melaju B29-2,	06-03-20S 106-38-10E	ID AMS:T503 Sheet SB 48-12	SA-2, link			
2	Djakarta SAM Site Tjilintjing A06-2,	06-05-45S 106-56-40E	ID AMS:T503 Sheet SB 48-12	SA-2, configuration undetermined			
3	Djakarta SAM Site Tjilodong B17-2,	06-25-55S 106-50-10E	ID AMS:T503 Sheet SB 48-12	SA-2, link			
B. Kalidjati SAM Training Area (This site probably has no operational function; it appears to serve a training function only)							
4	Kalidjati Missile Training Center,	06-32-52S 107-32-53E	ID AMS:T503 Sheet SB 48-12	SA-2, undetermined			

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CIA/PIR-26/64
25X1

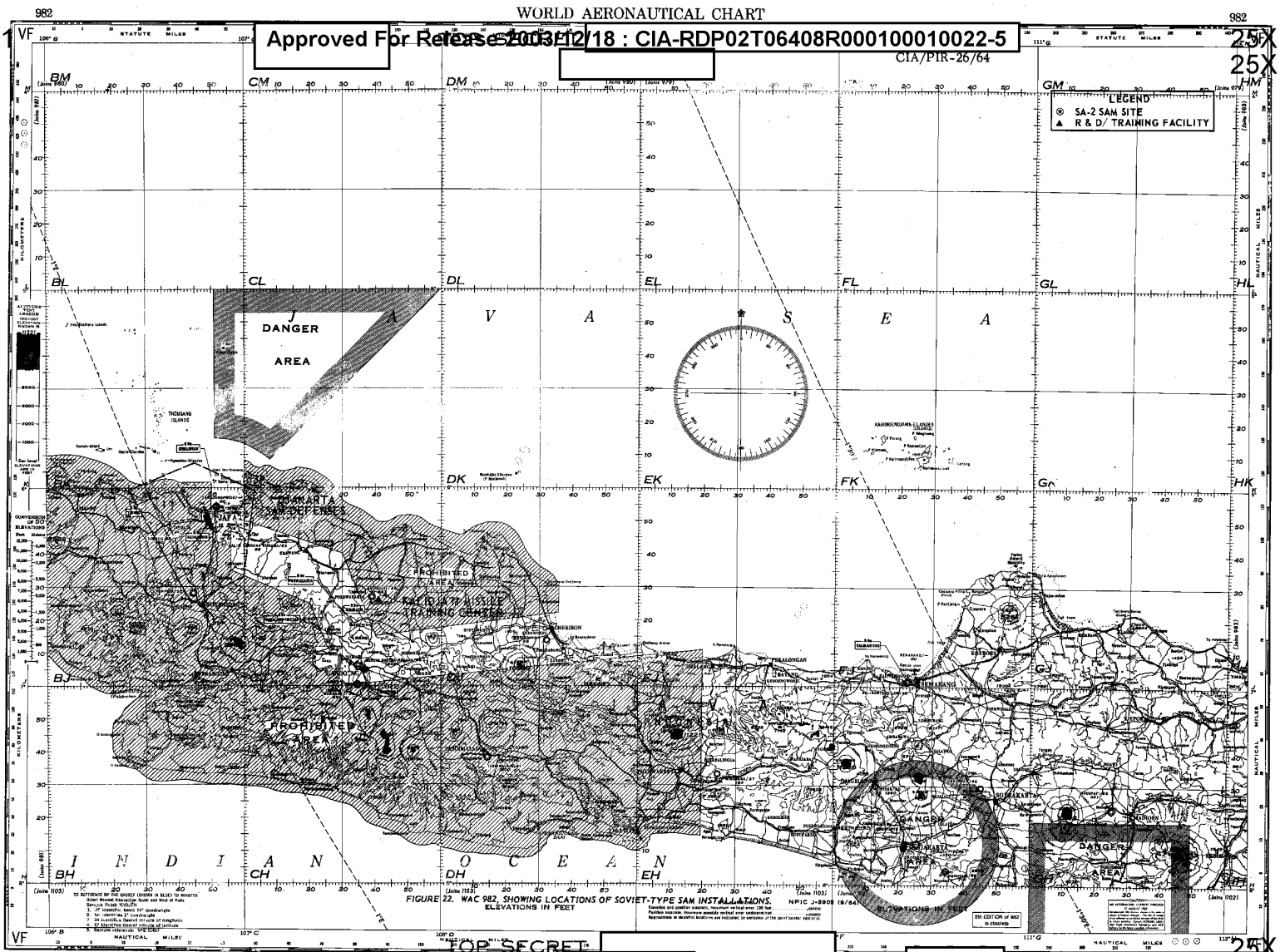

FIGURE 22. WAC 982, SHOWING LOCATIONS OF SOVIET-TYPE SAM INSTALLATIONS.
ELEVATIONS IN FEET

NPIC J-3909 (9/64)

TOP SECRET
25X1
Approved For Release 2003/12/18 : CIA-RDP02T06408R000100010022-5
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2. CIA. PIR-3/64, *Soviet-Type SAM Installations, WACs 102, 103, 127, 131, 152, and 153,* Jan 64 (TOP SECRET
3. CIA. PIR-7/64, *Soviet-Type SAM Installations, WACs 154, 155, 156, 158, and 159,* Mar 64 (TOP SECRET
4. CIA. PIR-8/64, *Soviet-Type SAM Installations, WACs 160, 161, 162, 163, 164, 165, and 166,* Mar 64 (TOP SECRET
5. CIA. PIR-11/64, *Soviet-Type SAM Installations, WACs 167, 168, 169, and 170,* Apr 64 (TOP SECRET
6. CIA. PIR-14/64, *Soviet-Type SAM Installations, WACs 194, 196, 198 Through 205, and 231 Through 234,* May 64 (TOP SECRET
7. CIA. PIR-15/64, *Soviet-Type SAM Installations, WACs 235, 236, 238, 239, 244, 245, 246, and 248 Through 252,* Jun 64 (TOP SECRET
8. CIA. PIR-17/64, *Soviet-Type SAM Installations, WACs 281, 282, 287, 289, 291, 322 Through 326, 328, and 329,* Jul 64 (TOP SECRET

REQUIREMENT

CIA. C-RR3-80,733

PROJECT

C-1580/63 (partial answer)

25X1

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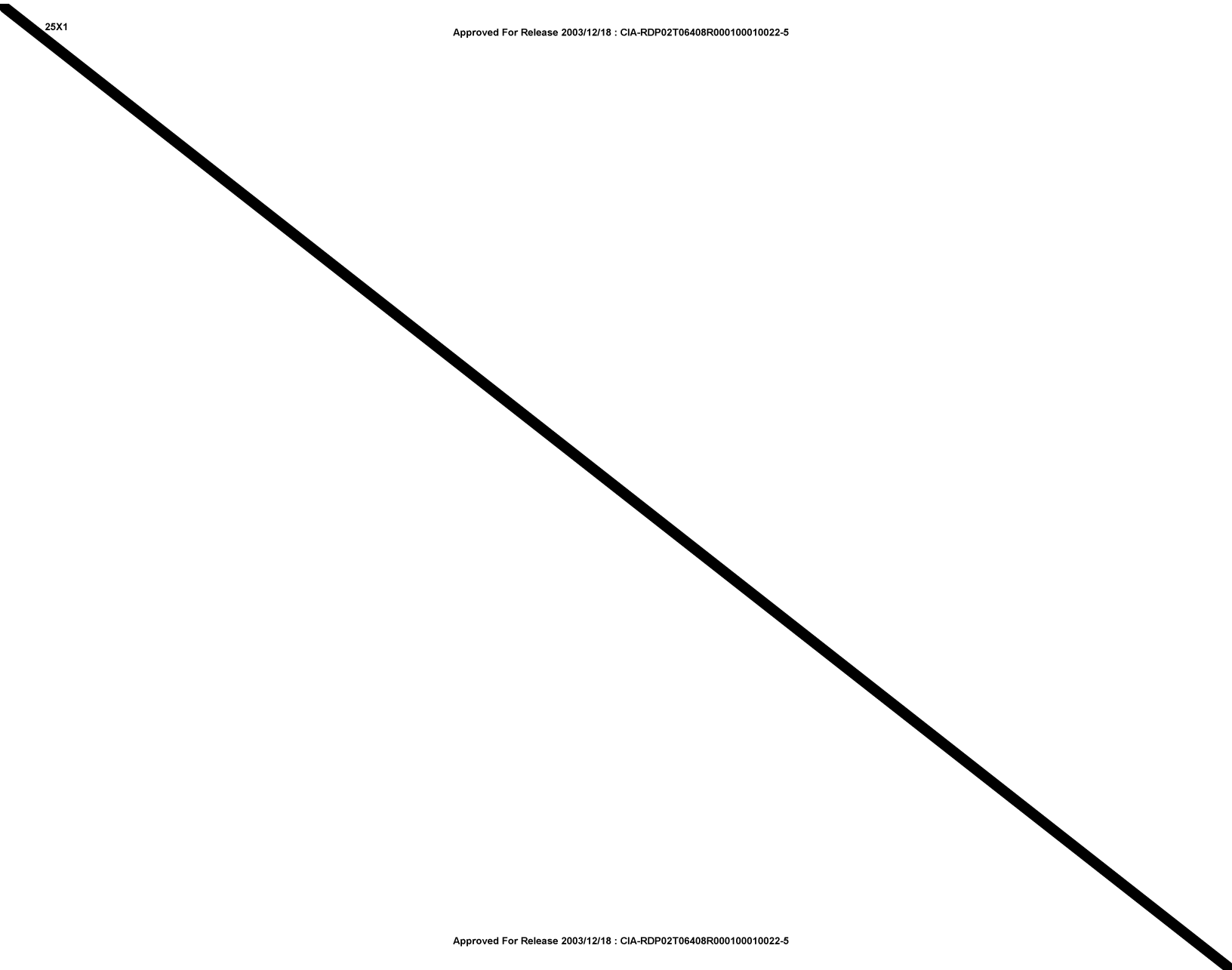

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